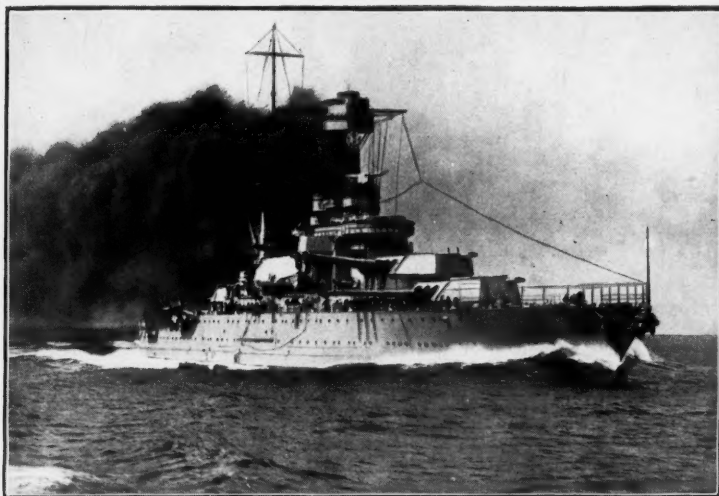


THE DENTAL DIGEST



OCTOBER~1926

VOL. XXXII, No. 10

EDITED BY
■ GEORGE WOOD CLAPP D.D.S. ■
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CONTENTS

VOL. XXXII

OCTOBER, 1926

No. 10

CONTRIBUTED ARTICLES

	PAGE
Surgical Prosthesis . . . VETHAKE E. MITCHELL, D.D.S.	665
The Importance of Serial Extraction of Affected Teeth, FRED D. MILLER, D.D.S.	675
The Naval Dental Surgeon and His Work . . .	680
Expectation by Denture Patients . . . HARRY J. HORNER, D.D.S.	684
Our First American Dentistry . . . JOHN WALKER HARRINGTON	685
Togo's "Discursions"	693
A Farewell Dinner to Prof. Dr. Guido Fischer . . .	696
1927 Meeting of the American Dental Association . . .	698
The Latest Developments of the Articulation Problem, WILHELM BALTERS	699
Dental Laws . . . ALPHONSO IRWIN, D.D.S.	707
DENTAL ECONOMICS . . .	714
PRACTICAL HINTS . . .	717
DENTAL SECRETARIES AND ASSISTANTS . . .	723
EXTRACTIONS . . .	731
DIETETICS AND HEALTH . . .	732
BOOKS RECEIVED . . .	734
FUTURE EVENTS . . .	735



THE DENTAL DIGEST

GEORGE WOOD CLAPP, D.D.S., EDITOR

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OUR COVER THIS MONTH

October 27th is set apart by official proclamation as "Navy Day," in recognition of the important position this Department occupies in the service of our government. The occasion suggested for our October cover a picture of one of the greatest of battleships—the Tennessee. She is one of the twelve superdreadnoughts of the American Battle Fleet. She is electrically driven, carries twelve 14-inch guns, and is manned by 1300 officers and men. Everything is practically up-to-date in her construction. She maintains on board her own postoffice, general store, printing office, machine and repair shops, doctor and dental offices, hospital, and a department for church services, moving picture and recreation rooms. The ship's newspaper, "The Tennessee Tar," printed weekly, gives all sorts of news items to interest and instruct the crew while journeying around the seven seas.

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NEW YORK, N. Y.

THE DENTAL DIGEST

Vol. XXXII

OCTOBER, 1926

No. 10

Surgical Prosthesis*

By Vethake E. Mitchell, D.D.S., New York, N. Y.

Any attempt to cover such a broad subject at one clinic is out of the question, but I shall present several patients showing a variety of restorations, which will give you some idea of the work being done in this field.

First, let us take up the subject of congenital cleft palate. No doubt you are all acquainted with this defect; yet, as the name is not literally correct and is often confusing when used in complicated cases, it may be well to simplify the nomenclature. A palate that has never been united could not be correctly described as "cleft." "Un-united" seems to me to be a better name. When the defect extends through the anterior part of the mouth, the alveolar process and the lip, these complications should be mentioned in the nomenclature. Let us classify the conditions as follows:

Class I. Congenital un-united palate (when the defect is limited to the palate).

Class II. (A) Congenital un-united palate and alveolar process.
(B) Congenital un-united palate, alveolar process and lip.

The palate is the roof of the mouth, posterior to the alveolar process formed by the palatal processes of the superior maxillary bones; it is covered with mucous membrane, called the "hard palate," to which muscular tissue is attached, extending backward and downward, ending in the anterior pillars of the fauces at the sides and in the uvula in the center (designated the "soft palate"). The complex muscular activity of this tissue forms a delicate, movable partition between the posterior nasal space and the oral cavity, which is perhaps the principal organ concerned in voice and speech. When these tissues fail to unite in the median line in the embryonic stage of development, congenital un-united palate results. Now, after more than twenty years of study of this condition, I am firmly convinced of two things: (1) that, in the treatment of this defect, the correction of speech is

* From a clinic given before the First District Dental Society, New York, December, 1925.

what counts most; and (2) that this can better be accomplished by artificial restoration than by surgery. Without further explanation I shall present a patient of this class.

CASE 1

Miss W., aged 19, palate un-united, extending half-way through the hard palate.

When she was two and a half years of age, one of our greatest surgeons was consulted and he advised against an operation. He also stated that "at the proper time, no doubt, an appliance can be made which will give better results." She was referred to me at the age of



Fig. 1

Plaster cast of mouth, Case 1

ten, and by progressive treatment, instructions, and her wonderful co-operation the present results have been obtained. Upon examination of the mouth (Fig. 1) we see the un-united uvula (soft palate) and part of the hard palate, also the undeveloped vomer bone or septum. In all of these cases the septum is lacking in the same proportion as the hard palate is un-united.

In attempting the artificial restoration we have endeavored to restore these tissues, not only as to form but in such manner as to permit their normal functioning. The appliance (Fig. 2, palatal view, and Fig. 3, side view) consists of a gold retaining plate, with vulcanite restoration of hard palate and septum attached. The soft palate restora-

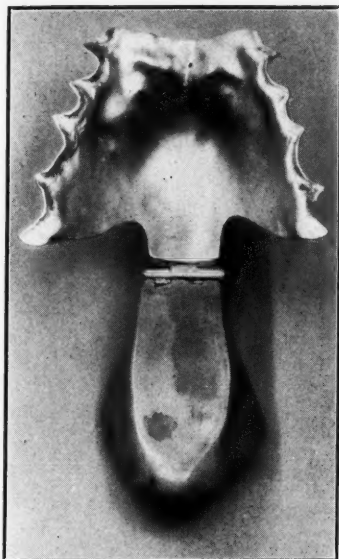


Fig. 2

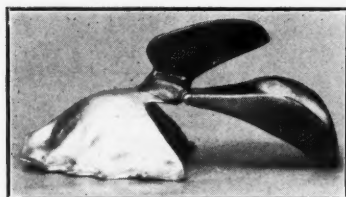
Palatal view of
appliance, Case 1Side view of
appliance, Case 1

Fig. 3

tion also is made of vulcanite, shaped to close the space and with flanges on either side to rest on the upper surfaces of the palatal tissue. This is attached to the hard palate restoration by means of a specially constructed hinge.

In this way we have restored the missing tissues, not only the roof of the mouth but the nasal floor, and by the movable soft palate we are able to restore function by bringing into play the delicate muscular activity of the palatal tissues.

CASE 2

This patient belongs under Class II, Subdivision B. Originally she had an un-united palate, alveolar process and lip, unilateral, left side.

Five different operations have been performed on the mouth and lip of this young lady, with the result that, while the lip has been restored quite successfully, the upper mouth has been badly mutilated. In fact, the resulting condition is worse than the original defect, as you will see from these plaster casts of the mouth (Figs. 4-7). In this case, if the lip and the alveolar process had been united by operation and the palate left for artificial restoration, the ultimate result might have been better. However, by extracting several teeth that were out



Fig. 4

Plaster cast of upper mouth, palatal view, Case 2



Fig. 5

Plaster casts, articulated, front view, Case 2



Fig. 6

Plaster casts, articulated,
right side, Case 2



Fig. 7

Plaster casts, articulated,
left side, Case 2

of alignment, interfering with the movements of the tongue in speech; by restoring the anterior portion of the mouth with vulcanite, carrying the teeth; and by lengthening the shortened soft palate with a vulcanite restoration, hinged to a gold plate covering the roof of the mouth (Figs. 8-14), it was found that the lip was so contracted that it would be very difficult to insert the restoration all in one piece,



Fig. 8
Soft palate restoration,
side view, Case 2



Fig. 9
Anterior restoration,
front view, Case 2



Fig. 10
Under palatal view of plate and
soft palate restoration, Case 2



Fig. 11
Upper palatal view of plate and
soft palate restoration, Case 2



Fig. 12
Anterior restoration, palatal view, Case 2

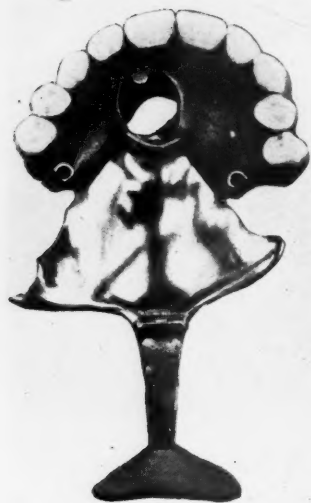


Fig. 13

Plate and soft palate restoration,
with anterior restoration,
palatal view, Case 2

Side view of same,
Case 2



Fig. 14

hence the two parts. At present the lip has been stretched by use over the restoration, so that the two parts could be united and inserted, but there are advantages in still having them separated.

CASE 3

In presenting this patient, a variety of prosthetic work is shown in cooperation with surgery.

When she came to the surgeon for treatment, there was found a large cystic tumor of the mandible, left side, extending from the median line back to the ascending ramus. To eradicate the disease completely, a heroic operation was decided upon in which it would be necessary to resect the mandible at a point just anterior to the right cuspid tooth, disarticulate the mandible on the left side and remove that portion bodily. Previous to the operation, impressions of both the upper and the lower jaws were taken and plaster casts were made and mounted on a mechanical frame (Fig. 15). This was done for the purpose of constructing an interdental splint to stabilize the remaining portion of the mandible after the operation. Unless this was done, the contraction of the tissues in healing would pull this portion of the mandible to the left, throwing it out of alignment with the upper jaw.

The lower cast was sawed apart at this point of resection and removed, leaving the right fragment of the mandible to be preserved, containing four teeth in occlusion with upper teeth (Fig. 16).



Fig. 15

Plaster casts mounted upon mechanical frame, Case 3

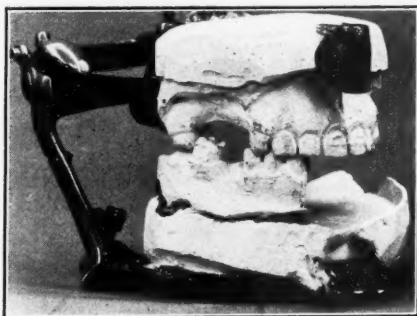


Fig. 16

Plaster casts mounted with section of mandible removed, Case 3

A lock splint of coin silver was cast, the upper and lower segments separately, with tubes on the buccal surfaces, so that by inserting a pin through the tubes the jaws could be locked together (Fig. 17). These splints were cemented to the teeth before the operation, but not locked together. After the operation the pin was inserted by the surgeon and the jaws thus locked. The splints were allowed to remain for six weeks after the operation and were then removed.

While the remaining fragment of the mandible would move to the

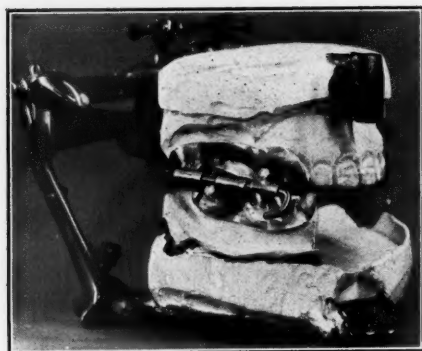


Fig. 17
Interdental lock splints in position on casts, Case 3

left when the mouth was opened, it could easily be brought back to position. It is evident that the four teeth would have to support the restoration and, to get the combined support of the four, all were fastened together. This was accomplished by means of gold caps cemented to the teeth and previously soldered together. The space between the second bicuspid and the molar was utilized for a split bar, making a firm attachment for the removable restoration (Fig. 18). A gold saddle was cast to fit the lingual surface of this portion of the mandible, over the split bar, filling the space between the bicuspid and the molar.

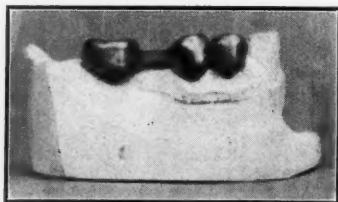


Fig. 18
Attachment for the removable restoration, Case 3

To the anterior portion of the casting, and conforming in direction to the original mandible, was soldered an oval platinized-gold bar, 12-gauge. This extended back as far as the position of the first molar on the left side. At this point it was bent up at a right angle and of sufficient length so that when the U-shaped piece of the same bar was soldered to it, the upper surface of the bar occluded with the anterior occlusal surface of the upper second molar. This made a framework to

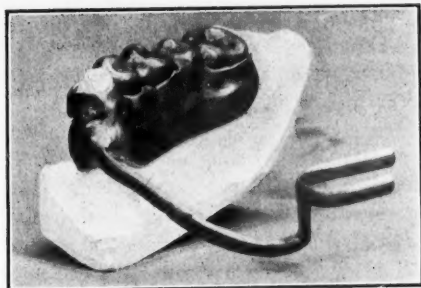


Fig. 19
The removable framework, Case 3

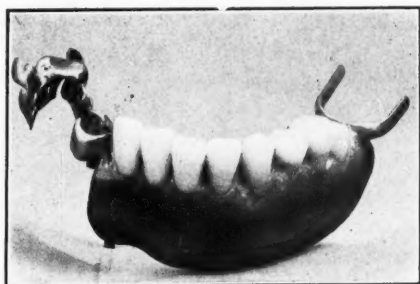


Fig. 20
The restoration, Case 3

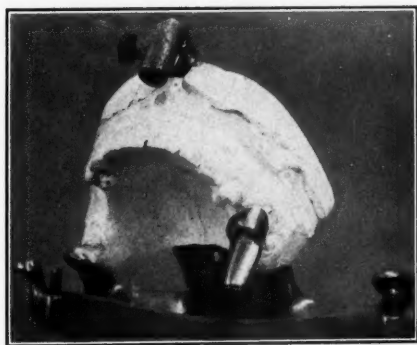


Fig. 21
The elongated upper molar tooth, used for a sliding joint, Case 3

which the artificial teeth and vulcanite restoration were attached. (Figs. 19-20.)

The upper left second molar was elongated by means of a gold cap covering the tooth; and a gold casting, cylindrical in shape, slightly tapering, and of nearly the same diameter as the tooth, was soldered to it. This was made just as long as the tissues of the floor of the mouth would permit when the mouth was closed. (Fig. 21.)

When the restoration is in place, the U-shaped bar slips around the elongated tooth of the upper, producing a loose joint, allowing the opening and closing of the mouth, preventing the mandible from moving back on the left side, and retaining the alignment of the mandible to the maxilla.

As to the service of the restoration in mastication, this depends very much upon the ability of the patient to adapt herself to the new conditions and the increase in strength and activity of the muscles on the right side. The speech is greatly improved by the restoration, as also is the control of the mandible.

17 East 38th Street.



The Importance of Serial Extraction of Affected Teeth

By Fred D. Miller, D.D.S., Altoona, Pa.

Consulting Dental Surgeon, Pennsylvania Railroad.

For the past five years the writer has been devoting an hour a day, in his own office, to employees of the Pennsylvania Railroad who are kept away from work by some more or less serious systemic disease. From one to six such persons are seen daily. Service for them has been confined to the diagnosis and elimination of mouth infections in all cases where it was thought that the mouth infection might be a contributing factor to the systemic involvement. These men are sick. They have been "off on the relief" for periods which vary from one to four weeks in some of the less serious cases, and from months to years in some of the chronic cases. There have been about 1,000 of these cases, each with a carefully recorded medical history. The general plan has been to extract all pulpless teeth showing any apical involvement, and wherever curettement was indicated, it has been carefully performed. Following the removal of these pulpless teeth and the curettement, some cases have cleared up very promptly, especially cases of neuritis, neuralgia, neurasthenia, vertigo, lumbago, heart protest, tachycardia, arrhythmia and some other conditions.

Except in a very few cases, where the systemic involvement was not of a serious nature, no effort has been made to conserve pulpless teeth for these sick men. Every effort has been made to do the greatest good for the greatest number, and it has been borne continuously in mind that these men are all ill and that these are not cases for temporization and experimentation.

Many of the heart cases have been extremely interesting. Some cases of high or low blood pressure have responded almost marvelously. It was not necessary for the writer to read the Buckley-Price debate to know that there is a very definite relation between mouth infection and systemic disease. The men who are being referred to in this article were sick and they had bad teeth, and when these teeth were removed, a sufficient number of cases showed marked improvement so that the removal of the teeth was thoroughly justified.

One of the most important things that have been learned is that it is very dangerous to extract a number of teeth at the first visit. This danger is so great and so generally unperceived that it is worth while again to call attention to the importance of serial extraction in cases of systemic involvement.

In cases of heart protest or any systemic infection of the so-called rheumatic group lesion, with signs of focal infection, great danger to

the patient may result if a number of teeth are extracted at the first sitting. An extensive extraction opens up so many avenues of infection and allows so much infected material to get into the blood stream that the infection may be too great for the patient's lowered power of resistance. On the other hand, by serial extractions the patient's resistance can so be built up that not only will he not suffer from shock or reaction from toxic absorption, but he may improve as the extractions progress. It is advisable to extract only one tooth at the first sitting. If at the end of three days there has been no reaction, one or more may be taken out, and if at the end of another three days there has been no reaction, the remaining teeth may be extracted. The proper period for an anaphylactic reaction would be eight days, but we find that if there is going to be any reaction, it will usually occur within a few days.

There is a great difference between lancing an abscess and extracting an infected tooth. When you lance the abscess, you evacuate the pus and get rid of it, but when the tooth is extracted, especially where curettement is necessary, it may be unavoidable that at least a portion of the infected material should be taken into the blood stream. It is frequently said that extracting an abscessed tooth is like taking out an appendiceal abscess, but the similarity does not hold, because the surgeon does not cut into the appendiceal abscess unless it is a pus case to begin with. He tries to remove the abscess without bringing the contents into contact with any surfaces by which they may be absorbed. Certain medical men of my acquaintance have objected to serial extractions, saying that you might just as well take out an appendix a little at a time as to take out a lot of teeth a little at a time, but the conditions are entirely different.

A lady presented with tachycardia with a pulse rate of 188. She had not been able to work for six weeks. The radiograph showed four pulpless teeth and marked destruction of periapical tissue (Fig. 1). One of these teeth was immediately extracted because the heart was running away and could not long sustain such a speed. The following day the pulse rate dropped to 134. Three days later we removed a second tooth, and the pulse rate dropped to 124 on the following day. Three days after the second extraction we removed the remaining two pulpless teeth and on the next day the pulse rate had dropped to 114. Within three weeks her pulse rate had gone back to normal, she had gained seven pounds in weight and had returned to work.

Two years ago a man came into the office with twenty-two diseased roots broken down to the gum line. He was a tobacco-chewer, and all his teeth were black with tobacco stain. He was advised to return the next day and have one or two roots removed. He said he had made arrangements to have them all removed under gas. He was advised

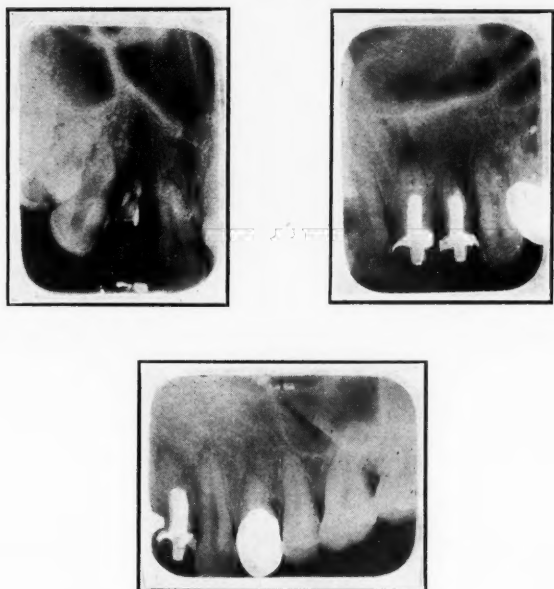


Fig. 1

against this, and the danger was explained to him. It was suggested to him that his dentist remove one tooth on the first day. He replied that he thought the dentist knew what he was doing, and two days later he had the twenty-two teeth removed. Following the extraction he took pus pneumonia, and the general physical shock and absorption of infection were so great that he was confined to his bed for ten months.

In many cases of extensive extraction we do not hear from the cases afterward, but the damage has been done anyway. The serious symptoms may not appear until three or four days or a week after the wholesale extraction, but the temporary reaction usually occurs the following day, or permanent injury may be done to the heart muscles without the patient's being able to trace the connection between the extraction and the damage.

J. R. was a married man, 28 years of age, with four children. Examination revealed a very grave heart involvement, with the pulse missing every third beat. Systolic pressure was 100, the diastolic was 60, and his prospects of returning to work within a period of six months were extremely remote. An examination showed fourteen infected roots and two teeth. (Figs. 2-3.) These were extracted serially, the first on November 18th and the last on December 14th. On



Fig. 2

Case from which 14 infected roots and two teeth were removed serially between Nov. 18th and Dec. 14th (radiographs shown as Fig. 3). The pulse was missing every third beat. Large mirror held in mouth reflects arch therein.

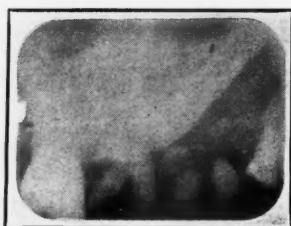


Fig. 3

December 16th the systolic pressure was 120 and the diastolic pressure was 100. The medical examiner of the Relief Department of the Pennsylvania Railroad allowed the man to return to work within a week.

Our conclusion, after having handled over a thousand cases of these sick men, is that in serious systemic disease we have no right to try conservative treatment of pulpless teeth. We have had a very large percentage of patients who have been remarkably improved and in many cases almost miraculously benefited. The medical examiner is enthused over the results we have attained and we have a very hearty cooperation from the medical men, as they realize in many cases that their hands are tied without the assistance of the dentist.

In conclusion, I want to quote the summary of an article by S. Calvin Smith, M.S., M.D., Philadelphia. This article appeared in the *Medical Journal and Record*, August 19, 1925, under the title

Dental Infections and Heart Irregularities. The summary is as follows:

"1. Heart irregularities will sometimes disappear when peridental abscesses are identified and surgically removed.

"2. The x-ray is of assistance in identifying peridental abscesses, but it cannot supplant thorough clinical examination and exhaustive tooth vitality tests at the hands of a modern dentist.

"3. A dentoradiogram that fails to show rarefactions should not lead the physician to absolve the teeth from blame when tracing the cause of heart abnormality. Clinical dental examination is necessary.

"4. Should a dentoradiogram present suspicious rarefactions, the accused teeth should be subjected to a clinical dental examination.

"5. A peridental abscess which is determined to be present by x-ray and by clinical studies admits of no compromise. That abscess should be surgically removed, even though the removal of the abscess means the removal of the tooth. It is unscientific to assume that an abscess can be treated through a small opening in a tooth and thus rendered harmless permanently. The physician who has charge of the health of a patient should not countenance such a temporizing maneuver, which is always inimical to and very frequently jeopardizes the heart integrity of that patient.

"6. The form of heart irregularity which occurs with the greatest frequency in association with periapical dental abscesses is the irregularity known as the premature systole. In the general run of patients who are concerned about their hearts, and who as yet are not in any sense cardiac invalids, the premature systole is the irregularity most likely to be present.

"7. A study of the heart is incomplete without radiographic and clinical studies of the teeth."

1122 Twelfth Avenue.



The Naval Dental Surgeon and His Work

A battleship is interesting and a bit awe-inspiring with her huge rifles, her marvelously efficient system of controls and her tremendous motive power. All of this stirs the imagination, but the multiplicity of strange physical and mechanical devices aboard is apt to confuse the observer and cause him to overlook the men behind the guns, and the men behind the men behind the guns.

The ship's company is, to all intents and purposes, a community in



The Dental Office on the U. S. S. Dobbin

itself, comparatively independent of extraneous influences and self-sustaining for long periods. It has its own administrative and executive heads, its own police force and courts, its own restaurants, stores, laundry, library and facilities for recreation. It includes within its complement electricians, carpenters, printers, machinists, copper-smiths, blacksmiths, photographers, and even its own brass band and orchestra.

Another little group of specialists, whose importance to the general organization has been proved in time of war and in time of peace, is

the surgeon's division. The dental surgeon is the member of the medical department upon whom we shall look with particular interest. The majority of the seventy-odd thousand practitioners of dentistry in the United States, including those who have visited one or more of our fighting ships on Navy Day or upon some other occasion of ceremony, probably imagine the naval dental surgeon a husky young man hiding behind a snappy voice and an even snappier uniform, but those who have met our professional brother in the Navy under daily routine conditions know him as a very serious chap who is doing his best to obey the regulations and to make his services available for the greatest possible number of his shipmates.

The dental officer is enjoined by naval regulation to be unrelenting in attention to the members of the naval personnel who may be patients under his care. His professional services are available only for officers and men on the active list of the Navy and Marine Corps and are restricted to those measures which will most effectively and economically preserve the teeth and insure physical fitness.

The daily routine of the medical department on board ship begins with morning sick call. Promptly at one bell in the forenoon watch, or eight-thirty o'clock, the ship's bugler is summoned by the officer of the deck, who is directly in charge of the ship's activities during his four-hour watch, and ordered to sound sick call. All on board are thus apprised that the surgeon and the members of his division await the arrival of the morning's visitors to the sick bay.

Having finished his final cup of coffee at the wardroom breakfast table or completed his morning stroll on deck, the dental surgeon repairs to his office-operating room. Here he finds everything trim and shipshape, with the deck freshly "squeegeed," the bright work shining, and the sterilizer merrily boiling an assortment of mouth mirrors, explorers and instruments to be used in administering the sick call emergency treatments. The appointment book is open at the proper place, and wells of red and black ink are uncovered, if the ship is not rolling and pitching too badly, ready to be used in converting blank dental abstracts into permanent records.

All of the preliminary preparations have been attended to by the dental technician, an efficient young man who has been trained as an expert clerical and operative assistant at the Naval Dental School. The technician now summons one of the patients from the group in the passageway outside the door and places him in the dental operating chair. Only patients who require immediate attention are given sittings at this time. Others are logged in the appointment book and furnished with appointment cards by the technician while the dental surgeon is engaged in administering palliative treatment for visitors who demand attention without delay.

The last emergency patient no sooner has gone on his way rejoicing than "quarters" is sounded. The call is, of course, anticipated by all hands and the ship's cook, and every officer and man proceeds quietly and expeditiously to his station, where his presence is noted and reported by his division officer. The names of absentees and tardy arrivals, if there be any, are reported individually as exceptions to the "all present or accounted for" declaration of the division officers concerned and, unless satisfactory explanations are speedily presented, the delinquents are placed "on the report" for a formal interview and possible disciplinary action.

Setting-up exercises and ship's drills may follow quarters and the morning may be well spent before the dental surgeon is able to return to his operating room and proceed with the treatment of patients to whom appointments have been given previously. He is obliged to consider at all times the need of conferring the greatest physical benefit upon the largest possible number of persons and must systematize his procedures if he is to be at all successful in keeping the 1300 or more officers and men under his care free from the discomforts and disabilities that accompany and follow dental and oral infections or injuries. It is a fact little known and little appreciated that the naval dental officer is required to care for several times the number of patients treated during a year by the average civilian practitioner.

The materials used in naval dental practice are those which will insure permanent results with the maximum convenience of manipulation and economy of time. Amalgam, silicate cement, and the zinc and copper cements are the filling materials of choice, for the time required to prepare and insert restorations of gold and fused porcelain is prohibitive. Root-canal treatments are undertaken in so far as may be practicable, and all other phases of a complete dental service, with the exception of prosthetic dental treatment, are available for every officer and man. Facilities for prosthetic dental treatment are in operation at several naval hospitals on the Atlantic and Pacific Coasts, and patients who require artificial dental replacements are transferred to these activities for treatment.

The dental surgeon on board ship is furnished with an adequate, modern equipment which compares favorably with the best that can be found in the establishments of private practitioners and in dental infirmaries ashore. His x-ray machine and certain other furnishings must be carefully secured during target practice and while heavy weather prevails, but many of the instruments and appliances are especially designed for compactness, convenience and utility under sea-faring conditions. The average member of the profession would be quite surprised to know how much can be accomplished in the way of dental operations and treatments at sea.

The routine on board ship is subject to interruption by drills, movements of the vessel, changes among the personnel, and other factors which must be given consideration in connection with any attempt to systematize dental treatment. However, the dental surgeon is constantly in touch with virtually all members of the ship's company and can summon a patient or a group of patients for examination and treatment at short notice. While in contact with other ships in whose complements dental surgeons are not included, he may be required to treat large numbers of men from the other ships, but such disturbances of his routine occur infrequently.

Hours for recreation for all hands are designated by the captain of every ship, and all members of the personnel are expected to spend certain periods of time in physical exercise. The fleet athletic rules permit only one officer to participate with his ship's team in any football or baseball game, but supervision of the baseball and football players and the ship's boxers and wrestlers affords interesting recreation for the dental officer or any other officer who is partial toward competitive sports.

The dental surgeon may be called upon to take charge of one or more of the minor activities of the ship in addition to his regular duties. If he is not assigned to duty as a member of a court-martial board or the board which audits the accounts of the several mess treasurers on board, he may be designated to supervise the operation of the ship's laundry, to coach one or more of the athletic teams, to operate the wardroom cigar mess or the wardroom mess itself, or to act occasionally as counsel for men who are to be tried before courts-martial. The duties named are only a few of those which may be assigned to any officer in addition to his regular duties, and the nature of many of them permits close contact with the men, affording an opportunity to promote their comfort and happiness.

An interesting illustration of the versatility of the dental surgeon serving on board one of our largest dreadnoughts came to light recently when the ship visited a naval base to have one of her 16-inch rifles replaced. The huge gun had been firing unsatisfactorily and, while the nature of the imperfection in its construction was suspected, the ship's officers were somewhat at a loss to hit upon some means of verifying their conjectures. The dental surgeon became interested in the matter and volunteered to carry out an idea which he thought might disclose the source of the trouble. He was placed upon a hammock, one of the lashings of which had been passed forward through the muzzle of the rifle, and was drawn into the breech. With the aid of a flashlight and a quantity of beeswax he succeeded in taking an impression of the damaged rifling, and from the impression a model was made showing the exact nature and extent of the damage to the gun.

Even such a meager account of the activities of the naval dental officer as the foregoing can not fail to impress the reader with the fact that the gentleman in question leads rather an interesting life, if only by reason of the many personal and unofficial contacts which he enjoys in and out of the line of his professional endeavors.

Expectation by Denture Patients

By Harry J. Horner, D.D.S., Pittsburgh, Pa.

Many patients expect from artificial dentures a degree of efficiency which it is impossible for such dentures to give, and if they do not get it they are disappointed, although they really have no reason to be. In our office we have formed the habit of asking quite a good many patients what they expect from artificial dentures as compared with natural dentures and they often tell us, "From 50% to 75% as much efficiency as from good natural teeth."

If such patients are to find satisfaction in dealing with us and we are to find satisfaction in serving them, it is necessary to correct such an impression. Sometimes we do this by comparing the restoration of the teeth to the restoration of some other part of the body, such as a hand or a foot. They would not expect much efficiency from such a restoration until they had learned to use it and then never the same efficiency as from the sound natural organs. In the same way we lead them not to expect much from the artificial dentures until they have learned to use them.

We believe that we can deliver about 10% or 12% of the service which could be expected from good natural teeth, but not more. We would rather not serve a patient than have him go away with expectations which there was no hope that we could ever fulfil.

We get along well with a certain class of patients when we teach them what to expect before we make the dentures, and we do not if we allow them to continue the opinion which they have formed without any knowledge of the subject.



Our First American Dentistry

By John Walker Harrington, New York

New light is being shed these days on the beginnings of American dentistry by those explorers who have been delving into the remains of that really classic antiquity which once existed south of the Rio Grande. Centuries before Columbus came in his caravels, long before Jamestown and Plymouth Rock, and many a cycle before Paul Revere held out the lure that he could supply new teeth, this continent had dental artisans of rare skill. There is a tendency in this sesqui-centennial period to regard the early practitioners as merely pre-Revolutionary, when actually they were pre-Columbian.

One of the most important contributions to our knowledge of the "first Americans" has been made by the Mason-Spinden Expedition, which recently returned from wide explorations in Yucatan. Its researches indicate that the remarkable civilization which developed in the New World and built populous cities and reared temples of grandeur and beauty was not transplanted from other lands, but actually developed here. The leaders of the culture of the Western Hemisphere may well be called the Mayans. Mr. Gregory Mason, in the last few months, has reached the conclusion that this race originated in Central Mexico and thinks that its history can be traced back three thousand years. Whether one accepts evolution wholly or in part or rejects that Darwinian theory entirely is hardly germane to the question of the "Ur-Americans," who may have been developing in their own way for millions of years. The empire of the Mayas was established in Guatemala; evidences of it are seen in Honduras; and the ruins of its once great cities have been found in Yucatan, where the explorers this year have been so busily engaged. Possibly because they were overwhelmed by more vigorous races, such as the Toltecs, or through the spread of plagues and epidemics or on account of inadequate water supply, the communities which the Mayans established were abandoned.

So much has been written about this branch of the early Americans that one is inclined to forget that there were other peoples of high culture and ability existing here before the Spanish conquest. In South America, in the region stretching along the Pacific Coast with the Andes as a back-drop, was another theatre of early New World civilization, called "Peru" in the sixteenth century. It included not only the territory now known by that name, but many countries which are now republics, such as Chili and Ecuador.

Among the peoples of Mexico, of Central America and of South America there was much commercial intercourse. The remains of vast highways have been found, indicating that wares of all kinds were transported with a speed which is comparable with modern transit.

There was also communication with what is now known as the Southwest of the United States. Gold was brought from Central American fields, turquoise from regions now known as Arizona and New Mexico, copper from Peru, beautiful feathers and fine cotton cloth and tapestries from other parts of this vast domain where the arts and sciences of an advanced civilization flourished. These materials were made into objects of rare beauty by skilled artisans. The goldsmith work, the jewelry, the tapestries, the potteries and the ceramics, and the sculptures of these ancient advance couriers of American civilization rivaled and in some cases surpassed the finest examples of European skill.

That these races, such as the Mayans, the Aztecs, the subjects of the Incas in Peru, had the material and the mechanical ability with

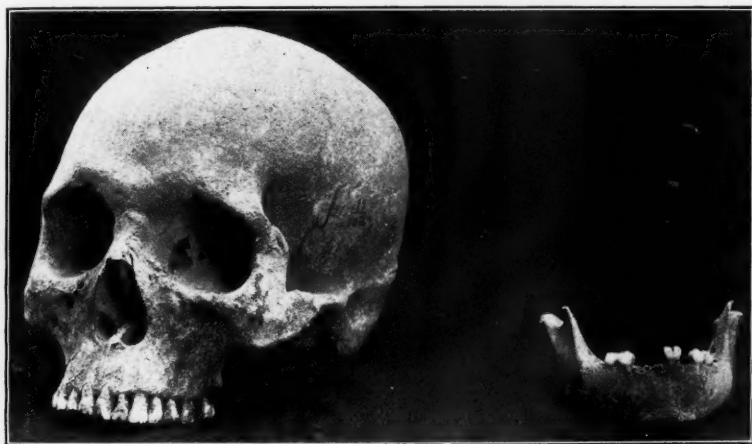


Skulls with filed teeth, Zacapa, Mexico. (American Museum of Natural History.)

which to develop high-class dental work, there can be no doubt. Although so far we have only a few examples of this pre-Columbian dentistry, these are sufficient to show that at least the decoration and ornamentation of the teeth received much attention among the progressive aborigines. It has been assumed generally that all the operations of these primitive dentists of the New World were for cosmetic rather than for prosthetic reasons. Who knows? The idea that the ladies and gentlemen of quality in those old days sought dental aid only for the sake of golden or jeweled smiles has much to support it, especially as the inlays and the overlays found so far are confined to the upper jaws. To subscribe to the theory that all this oral adornment was due only to vanity seems like jumping at conclusions, however, as research in aboriginal dentistry on this continent has only

just begun. The indications are that when more facts are known, we shall have to admit that Mayan, Aztec or Incan dentists had a skill which rivaled that of the twentieth century and possibly they possessed a wide knowledge of the diseases of the teeth and ministered to them.

Inlaying was practiced considerably by the ancient Mayans. Skulls containing teeth with inlays were unearthed only a few months ago by the expedition sent to Yucatan by the Department of Middle American Research of Tulane University of Louisiana (New Orleans). Professor Frans Blom, the head of the expedition, in a letter to the writer, tells of finding an upper incisor which had an inlay of black stone, possibly pyrite. This find, which is in excellent condition, was



Skull with filed teeth and lower jaw, Zacapa, Mexico. (American Museum of Natural History.)

made at Yoxiha, in the State of Chiapas, and only a short journey to the south from the ruins of the splendid Mayan city of Palenque. At Palenque itself were discovered several teeth with elaborate inlays of both jade and pyrite. Modern dentistry has reason to be proud of its development of inlaying, especially in the use of porcelain, and yet it might well recognize that those primitive Mexican craftsmen anticipated some of its best achievements. These pioneers of Yucatan and Guatemala used inlays of hematite, of obsidian, of rock crystal and jade. They were especially proficient in their employment of turquoise, for this material with its delicate hue of bluish green was much esteemed for ornaments and jewelry.

There is no more convincing evidence of the incomparable skill of

the Mayans and the Aztecs in the manipulation of this stone than the ceremonial shield of turquoise mosaic in the Museum of the American Indian, Heye Foundation, New York. This plaque, fourteen inches in diameter, has an exquisitely beautiful design composed of 13,500 pieces and, although centuries old, is in a perfect state of preservation. Some of the fragments are so minute that they can hardly be discerned by the naked eye. They are so graded and arranged that they form ripples of varying tints of blues and greens. They seem to be held in



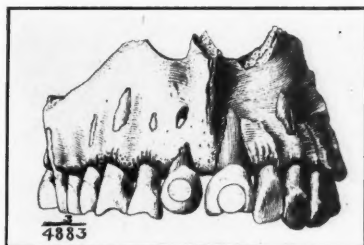
Mosaic shield, District of Acatlan, State of Puebla, Mexico. (Museum of the American Indian, Heye Foundation.).

place by a gum or cement. These dental inlays of the Mayans, as well as those of other races excelling in this art, undoubtedly were held in position by cement, remains of which have been found in teeth of the period.

According to Professor Marshall H. Saville, the inlays were made in artificial cavities, which were produced by some kind of stone implement, as the use of metals does not seem to have extended to that part of Mexico. The process was a laborious one and must have taxed the

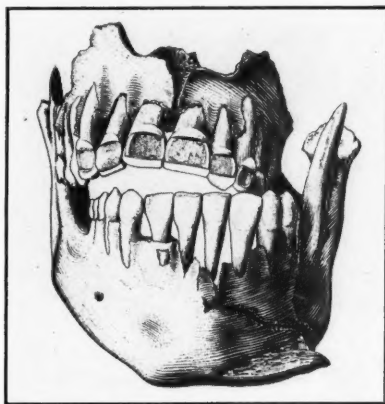
patience of both the operator and the owner of the teeth. The pits are strikingly uniform in size and the inlays are fitted in with such exactness that there are no signs of decay in the structure of teeth back of these tiny plates.

Still more remarkable are the gold inlays unearthed in tombs of Ecuador or taken from skulls which have been found along the river



Round inlays from Ecuadorean skull.

banks. As far as is known, no gold inlays have been recovered from Mayan or Aztec remains, although it would appear that many such should be extant, considering the superior skill of the goldsmiths of that region, which could have been so easily drawn upon for dental purposes. The gold inlays are discs a little less than one-fifth of an inch in diameter usually, or 4.5 millimeters, fitted exactly to the setting in the enamel made for it and secured by some dark reddish cement, as shown by examination. There are some excellent specimens of the discs themselves on view in the Museum of the American Indian, Heye



How gold overlays were fastened.

Foundation, New York, as well as specimen teeth in which the inlays are intact.

Here is also an upper jaw in which teeth have been overlaid with gold; that is, they have veneer crowns. In fact, any one looking upon the smiling countenance of the owner of those teeth in life would get the idea that he boasted a solid gold denture. As shown by a specimen in the British Museum, from which the gold is missing now, the precious yellow metal was applied on an area filed or cut away from near the gums almost to the ends of the teeth, exposing a wide path right down into the dentine. The bands of gold were snapped into place and evidently secured by cement. Here, too, the patience of Job must have been at the command of the person who submitted himself or herself to the operation, which must have been most painful.

Professor Saville thinks it not improbable that the natives of Ecuador at this period were able to bear the suffering by chewing coca leaves. The coca plant was being used by the peoples of that region when Pizarro conquered it. Indeed, the Spanish conquistadores made a law forbidding its use, but this statute soon dropped into the discard and they themselves employed it to enable them to withstand fatigue better or to bear the pangs of hunger on long marches, when necessary, and to deaden the nerves when soldiers were wounded. As the employment of cocaine, the active principle of this herb of solace, dates back only to 1885 in this civilized world of ours, it is seen that the aboriginal dental operator may have been far in advance of modern dentistry.

From the adornment of teeth to treating their injuries or repairing them, or even providing substitutes for missing parts of the dental equipment, is only a step. The filling of teeth, according to European history, goes back for a thousand years. As more is learned of the life of the truly "early Americans," it may be proved that they also employed stoppings to stay the ravages of caries.

One authority reported that a skull was found in a funerary jar in Ecuador which undoubtedly was that of a native who had passed away many centuries before. It was stated that in the jaw were several false teeth, held in place by gold wire. According to another version, the teeth were real and were merely entwined with the aureate strand to enhance their appearance. It is rather to be regretted that this find was not better verified. Our Colonial dentists were making use of this plan and were holding the artificial teeth in position by anchoring them to the sound ones by means of gold wire. They carved teeth from ivory or bone and sometimes even induced one man to part with a good tooth, which was inserted in the jaw of a patient or patron who could afford to pay for the sacrifice.

There is indisputable evidence, however, that the pre-Columbian

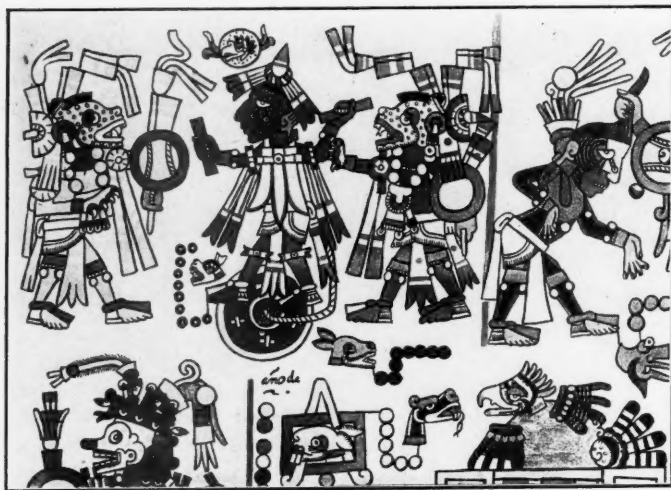


Fragment of skull with gold overlays on teeth, Esmeraldas, Ecuador. (Museum of the American Indian, Heye Foundation.)

dental experts implanted sound teeth to make up for the losses which primitive Americans of wealth sustained. A skull was found near Atacama in which the loss of a right central incisor had been made good by the substitution of a right lateral incisor. The acquired tooth had been in commission for some years before the death of its last possessor, as shown by the condition of the socket. In another case it was found that the disappearing of a lower left incisor had been made up by putting in its place one carved from a dark stone. The artificial tooth had evidently been in use for many years, for it was incrustated at its base with tartar. Mouth hygiene had not developed as much in that day as had mechanical skill. Among the Indians of today the old and wise carve false teeth out of wood and insert them into empty sockets, but this may have been learned through contact with white men, who told them of the value of "store teeth." Inasmuch as the skull in which the stone tooth was found is considered to be 1500 years old, it would appear that Dr. William Younger of San Francisco, who "introduced" implanting in 1885, was somewhat anticipated in his discovery.

The early Americans, especially the Mayas and the Aztecs, filed their teeth to sharp points sometimes in order to make them conform more to the canons of beauty. Sometimes these teeth were notched. This process was not so difficult, although tedious, and was often done by aged women, who had acquired skill and patience in the use of the stone tools used for the purpose. The sharp-toothed jaguar figured much in the religion of these early peoples. He is shown as a half-human god in some of the illuminated manuscripts or codices which

still remain and his teeth are always most prominent. Men, too, are sometimes shown in these ancient records with mouths wide open and bristling with filed teeth, as in the Codex Nuttall. There are some excellent skulls in the American Museum of Natural History, New York, in which are notched and pointed teeth of this variety. Often, besides being sharpened down to fine points, the teeth received an inlay, as was the case with the tooth found by the Tulane Expedition at Yoxiha. Teeth have been discovered also on which the enamel had a bluish-green tint resembling turquoise, but this condition may have been due to deposits of minerals, possibly from water, while the skulls were interred. Among the excavations of the Mexico of long ago the finding of green skulls also has been reported.



Feast of Xipa Totec as represented in the Codex Nuttall. (American Museum of Natural History.)

Such researches as these into the origins of American dentistry will develop many more facts and show that a still greater skill was attained by the aboriginal practitioners than has been considered possible. For many a decade the American dentist has been hailed as a leader in his art all over the globe. The discoveries made on this continent among the tombs of the "Greeks of the New World" disclose a still older foundation of tradition on which rests the fabric of our dental prestige.

220 West 42nd Street.

Togo's "Discursions"

Mr. Editor of Dental Magazine Offering Dentistry in Digestible Form:
Hon. Sir:

Seventh International Dental Congress occurring in Philadelphia during unappreciated but continuous rainfall proved occasion entirely capable of producing extensive thrills & rapid pulse rate in ordinary brains similar to those constituting equipment of Japanese office boy—thank you!

Principal lands failing to send delegates & representatives were chiefly those which no one has ever heard of.

28 assorted languages were encountered on all sides & most residents of Province of U. S. A. adopted simple method of making inventory of hair, complexion & other scenery of various visitors before attempting estimate as to geographical location of Hon. Country responsible for said visitors.

Striking similarity was noticeable between natives of U. S. A. & those coming from land of Hon. Samurai & Cherry Blossom. In both cases countenances are composed of faces entirely open & exposed to inspection during daylight hours or under artificial light. In case of most other foreign delegations, however, conditions were far otherwise or even more so. Large % of faces of European extraction were carefully concealed behind facial shrubbery & foliage of many years' growth indicating great prevalence of hirsute horticulture in many transoceanic countries.

Spectacle offered by convocation of such variety & magnitude is sufficiently overpowering to render adequate description impossible even by use of language of highest available horse-power & greatest muzzle velocity.

On every side abounded evidences of progress of mankind made in valiant & continuous effort to ward off disease & render life more successful while further efforts along same line are continued. Ancient pearl & bone-handled garden tools used in operating on teeth of partially human ancestors cause shudders in nervous systems of all intelligent beholders. Study of family tree of prize horror of modern life—despised dental engine—plainly shows this greatly disliked instrument to have been far more terrible & much less efficient in youthful days of Hon. Nation when men were brave but bilious.

Bashful teeth of Hon. George Washington exhibited entirely without drapery cause all envy to fade from mind of beholder who is overcome with admiration for colonial gentleman who could wear said assortment of gold wire springs, porcelain & ivory, white loose hair &

wig & complete military uniform while sneaking across Delaware River with unparalleled success!

Magnificent exhibit of U. S. Gov't arouses considerable thoughts in mind of somewhat intelligent tho impoverished taxpayer who will continue to meet overdue expenses of colossal mistake called World War for next two generations. (Entire letter might be filled Mr. Editor in hopeful elaboration of thought germs carefully concealed in foregoing sentence, but intelligent reader can lay down magazine & allow intellect to freely wrestle with thoughts arising in personal brains and proceeding along lines suggested, thereby enjoying mental gymnastics at only slight expense of effort.)

Amazing exhibit of slides & other pathology by Univ. of Vienna produces profound impression on all beholders capable of receiving one. Exhibits of astonishing growth of Mouth Hygiene movement & its present prevalence throughout Civilized World were extensive & convincing but persons showing interest in same were frequently noticeable by almost complete absence.

Clinics released on Friday as closing offering a magnificent program proved of sufficient interest to cause most men in attendance to refrain from rushing home in middle of proceedings. Thousands looked & listened to picked operators & demonstrators from entire Globe who eloquently & deftly talked & demonstrated on how to do it better, quicker & with less trouble if possible.

Throngs in attendance in all departments showed that thirst for knowledge is still leading passion of Mankind. Facts that largest crowds were almost continuously around booths of leading Mfrs. showed that Hon. Dentist is practical man who in addition to grand theory of how to do it must also have equipment which will enable him to actually perform improvements as suggested.

Final ideas resulting from unparalleled spectacle of International meeting are too voluminous for words Mr. Editor & only feeble attempts can be made along line of expression while trying to do so.

Dentistry is perhaps youngest of family of Hon. professions; however it contains notable chapters of high achievement on part of both individuals & groups who labored unselfishly for Human Welfare mostly while conducting humdrum undertaking called Daily Practice.

Today Mouth Hygiene Branch of Public Health Movement is promising wonders in shape of improved Health & increased Happiness for large % of Human Beings throughout entire World in few generations of future date.

Dentistry of today is undoubtedly poor second as preferred form of indoor amusement in minds of vox populi & other citizens; however it was much worse only few years ago.

Hon. General Washington established World Wide reputation for

100% truthful utterances and became the Father of highly successful country while wearing sets of artificial teeth which would cause modern man of 20th century nerve equipment to start on war-path of far different & less successful nature within 10 minutes from date of installation of such dental disasters as part of personal equipment. Thought arising in Japanese brains is somewhat as follows: "Is success in life caused chiefly by what you refuse to endure or by what you compel yourself to overcome?"

A complete answer is entirely unnecessary.

Hoping you are the same,

Togo.



A Farewell Dinner to Prof. Dr. Guido Fischer

The social amenities of professional life came into full play on the night of September 7th, when a group of dentists, largely from Greater New York, strove to make memorable the eve of the departure to his native land of Professor Guido Fischer, the official representative of Hamburg University to the Seventh International Dental Congress, by dining him and his good wife. The meal itself was *echt Deutsch*, every course containing a suggestion of the cuisine of the Doctor's home land.

When, after a few words of appreciation of the guest of the evening by prominent members of the dental and of the medical profession, Dr. Leo Winter, in the rôle of toastmaster, proposed the health of Professor Fischer and his wife, the fourscore or more diners present rose to their feet and, by their salvos, manifested their hearty approval of the words of praise accorded by the toastmaster and the previous speakers to the well and favorably known researcher and teacher, who has done so much in laying the foundation of and for the development of local anesthesia as it applies to dentistry and, contingently, to the human race.

Prior to a moving picture demonstration, coupled with animated drawings of the methods of local anesthesia by means of novocain, Professor Fischer made a charming address, in which he described his first visit to the United States twelve years ago, when he was enabled to plant the seeds of his research with novocain, which has developed into the present intelligent and scientific use of local anesthesia by dental practitioners throughout this country.

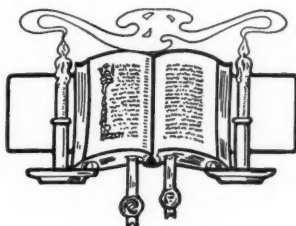
He expressed his special pleasure at being in the company of so many loyal pupils, who were present at the demonstrations which he was privileged to give during his last visit to this country, recognizing among them members of the faculty of the New York College of Dentistry and of the First District Dental Society.

Though a specialist in oral surgery, he said that he had come to consider local anesthesia as the main field of his research, believing that by specializing in this field, so important to dentists as well as to patients, he would be contributing his mite to the real advancement of his profession. In graceful terms he then referred to his wife, who sat by his side, as a wise counsellor and willing coadjutor in all of his endeavors—a sentiment which called forth spontaneous applause and cheers. He emphasized the fine support accorded him by practitioners and friends, mentioning especially Dr. Carl J. Herzog as his adviser in his earliest American experiences. He also referred to the devoted attention of Dr. Winter, whom he had at first met as a student

in the days of 1912, and with whose work he was being continuously kept informed through the scientific literature at home and abroad.

He closed by stating that the function of the evening was so much of a surprise and such an outstanding manifestation of friendly interest that the recollection of it would forever serve in memory as one of the most pleasant incidents of his life.

Professor Fischer sailed on September 9th to return to his teaching work at the Hamburg University, carrying with him the esteem of the profession of dentistry, socially, and their higher regard of him as a scientist. He will always be welcome to our shores.



1927 Meeting of the American Dental Association

The 1927 meeting of the American Dental Association will be held in Detroit, Michigan, at a date to be announced later.

The officers of the Association for the coming year are as follows:

PRESIDENT

Henry L. Banzhaf.....1217 Grand Ave., Milwaukee, Wis.

PRESIDENT-ELECT

R. H. Volland.....Iowa City, Iowa

VICE-PRESIDENTS

Charles R. Turner.....Evans Institute, Philadelphia, Pa.

G. A. Crise.....Manhattan, Kan.

J. P. Harper.....Grand and Caroline Sts., St. Louis, Mo.

GENERAL SECRETARY

Otto U. King,

Room 2018, Garland Bldg., 58 East Washington St., Chicago, Ill.

TREASURER

Arthur R. Melendy...Holston National Bank Bldg., Knoxville, Tenn.

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Frederick H. Lum, Jr., '29.....Chatham, N. J.

Sheppard W. Foster, '29.....711 Peachtree St., Atlanta, Ga.

Harold S. Smith, '29.....1010 Belmont Ave., Chicago, Ill.

John F. Stephan, '28.....1034 Keith Bldg., Cleveland, Ohio

William F. Walz, '28.....159 East Main St., Lexington, Ky.

Frank T. Taylor, '28.....419 Boylston St., Boston, Mass.

C. C. Allen, '27.....10th and Troost Sts., Kansas City, Mo.

Charles M. Benbrook, '27....707 Auditorium Bldg., Los Angeles, Cal.

R. H. Volland, '27.....Iowa City, Iowa

The Latest Developments of the Articulation Problem*†

By Wilhelm Balters

(Continued from September)

1. Do anatomical articulators with adjustable condyle path inclinations but with fixed articulator distances fill the above mentioned conditions? They have hinged joints and therefore allow of adjusting the maxillary models to the condyle axis. This hinged joint is movable in a horizontal plane and also obliquely to it, although only in a sagittal direction. An omnilateral movement, however, would



Fig. 6

Lateral movement in an articulator with fixed condyle distances. The jaw rotates about the resting condyle "O"

be necessary. From all possible movements, therefore, only one has been taken and is transferable to the articulator. These constructions, then, do not meet the requirements which must be demanded of them in practical use. (Fig. 6.)

2. We have something different in the anatomical articulators with adjustable condyle path inclinations and changeable or changed articulator condyle distances. Here the movement is more extensive. In addition to the hinge and protrusive movements the condyle can make a backward movement also by selecting a narrower condyle dis-



Fig. 7

By relocating the rotation points the lateral movement is changed so that it becomes narrower, because one condyle swings forward and the other backward.

tance on the articulator than the actual condyle distance. A lateral movement of the condyles, however, is not possible. Therefore these articulators also will not meet the requirements. (Fig. 7.)

3. The anatomical articulator with adjustable condyle path and adjustable articulator condyle distances with adjustable articulator condyles (Gysi three-point) comes nearer to meeting the requirements. Here the "to-the-side" movements become possible. Of course, as will

* From the Postgraduate Course of the Dental Institute of the University of Bonn.

† Translation from Zahnärztliche Rundschau, Berlin, Germany, January, 1925.

be seen, the real principle of the true anatomical articulator has been discarded and the articulator has become a complicated machine, which



Fig. 8

The movement in Figures 6 and 7 here changes. By moving back the rotation points the condyles themselves move sidewise.

at the same time proves the practical impossibility to reproduce an active condyle exactly. (Fig. 8.)

4. The jointless articulators have no hinged joint. With them the opening movement in protrusion must be fixed and reproduced by a path from the closing to the opening position. The movability of these hinged joints is as shown in Figure 9, but is not omnilateral. The moment it becomes omnilateral, it loses the measure for the

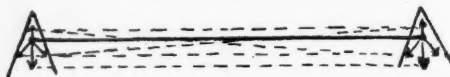


Fig. 9

With a free condyle, omnilateral movements are possible without restraint.

alleged individual lateral movements. The Eichentopf articulator becomes the Fehr articulator, which, however, is built on given cusp formations, while the distance from the supporting points does not coincide with that of the real condyles.

The Fehr articulator (Fig. 10) is an articulator according to the Eichentopf principle, with only two guide pins, the function of the third pin being taken over by the firmly-mounted set of incisors. After the registration of the movements of the plate in the mouth and trans-

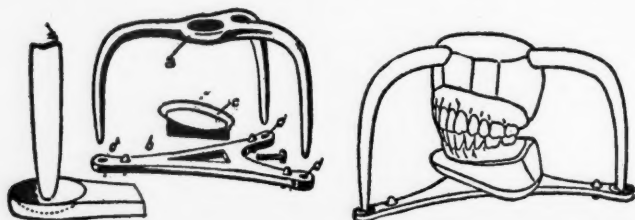


Fig. 10
The Fehr Articulator.

fer of the paths to the two glenoids, the side teeth are mounted, respectively ground. This articulator, therefore, is built on impression-taking and the final setting-up of the anteriors. For a complete denture, then, this hinge-jointless articulator requires a special registration in order that the imitation of an opening movement in protrusion may be possible. For making lateral movements these articulators require also the registration of curves so that a lateral movement of the condyles is horizontal and oblique directions may be possible. The object mentioned above—hinged joint with omnilateral movability—is obtained only with great difficulty.

As may be seen from the foregoing, investigation of the articulator problem has advanced us theoretically through the construction of the various articulators and allowed us clearly to view the solution of the problem. As long, however, as we have been thinking of an individual guide in the joint, the actual and attempted solutions have not given us what we had hoped, but we have seen that getting away from the idea of an actual condyle guide can practically give us an articulator; that is, if we can provide a hinge joint with omnilateral movements. The idea thereupon occurred to me to obtain this object by building in the two uprights of the well-known wire-bow articulator two springs which enabled both condyles to make omnilateral movements. To be sure, the spring may stretch and thus adopt oblique positions in accordance with the guide of the teeth, but it is impossible for it to become shorter and go below the height of the bite. (I have reported elsewhere on this articulator and its functions.)

It proved of particular interest to me to note how Schröder, and now also Gysi, practically abandoned the idea of the active condyle guide and adopted the anatomical articulator with free condyles; that is to say, they constructed articulators with fixed joint distances and the condyle paths of which may have several inclinations, but the joints of which are able to slide sidewise without hindrance. These articulators therefore have, as required, a hinge joint with omnilateral movability. Whether this is narrowed when the teeth are set up and abolished only after grinding or whether the omnilateral movability is possible from the beginning does not matter in principle because the result is the same. We have here, then, in these articulators the highest development of the anatomical articulator; we should, in fact, have the perfect articulator if the condyle could also move backward, or, in other words, if the jaw also could be moved backward bodily. This has been done with the Schröder articulator.*

Now that development has brought us articulators dreamed of for so long, it is the task of the research worker to teach the proper use

* It has now been done by Gysi also.—Editor, *The Dental Digest*.

of the articulators. What difficulties we may encounter here and what means are at hand to overcome them will be shown in the following, for if the "offensive on the terrain of the articulation problem" has brought the solution of the articulator question, the difficulties in the proper and correct setting-up of the teeth and shaping of the denture and baseplates have not been removed in the same measure, because use of an anatomical articulator alone is no guarantee that the denture made thereon is really good and will articulate. Frequently practitioners have told me of their complete failure to obtain results, for which reason they had abandoned all further attempts. I might say here that in our endeavor to find the solution of the articulation problem we have given too much attention to the formation of the masticating surfaces and completely neglected the shaping of the rest of the plate. The quality of an artificial denture does not depend on the articulation *alone*, nor does its functional value. It depends more on the firm seat of the denture than on its articulation, so that a patient may get along better eventually with a denture made on a hinge articulator than with one built on the best anatomical articulator, because in the former the exact position of the teeth on the ridge was carefully observed while in the second it was neglected so as to get a better articulation, and thus errors were committed which were bound to appear with a vengeance at the first attempt at mastication and which smothered with this first trial all desire to supply patients with articulating dentures.

However important articulation is, and however little it should be neglected, the statically correct construction and building out of the prosthetic plate is no less so. Yes, I might say that it should be given the greatest attention as a basic condition. From whatever direction masticating pressure may be exerted against the plate, the firmness of the plate should never be placed in jeopardy thereby. This applies equally to plates with clasps or other attachments, for the attachment is not for the purpose of making up for mistakes in the plates but to give a firm seat and the greatest possible masticating service.

Here I wish to stress particularly the importance of the formation of the cusps. Frequently I have observed that the practitioner does not hesitate to fit the denture of a young jaw on an aged jaw with absorbed ridge. It need cause no surprise in such a case if the attachment of the plate is not sufficient and mastication is accomplished only with difficulty. The overbite and high cusps are in wrong proportion to the base, which has become flat owing to the absorption of the ridge. Of course, no transverse or sagittal movements of the jaw are possible in such a case without dislodging the plate and interrupting the act of mastication. In such cases only a head bite and flat plate should be used, whereas, vice versa, a plate with overbite and high cusps is

indicated for the jaw with still well-formed ridges, which are able to support the transverse and sagittal pressures. Hence the greater the absorption, the more should the cusps be ground down. The anatomically or functionally shaped masticating surface is part of an artificial crown, because its root, owing to the periodontium, is capable, together with the adjacent teeth, of supporting the stress of mastication and of fully utilizing it for the act of mastication. About this we shall have to say more later on. Here I would only reply to a possible objection that it is impossible to chew with flat occlusal surfaces by saying that we do not masticate with grinding movements with the surfaces, but through extensive movements of the jaws in all directions by returning the jaws into occlusion from these several positions, whereby each time a masticating facet strikes against the contact point of both antagonists, it stamps a piece out of the food, so to speak. If the contact point of both antagonists is naturally flat and the triangular, otherwise free, space is filled with vulcanite, then plane strikes plane, when all proper crushing of food is of course made difficult, and only by specially selected food may the act of mastication be facilitated, because, as we shall describe later, the sucking movements of the tongue are then the principal factors in the crushing of the food. The interstices should be free from vulcanite so that the cut and crushed food may escape along both sides of the contact point. This process of bringing the two dentures together must be repeated over and over until the food, which is constantly carried back between the teeth by the action of the tongue, is finally crushed. These repetitions presuppose that the plates* will not strike in any place because the movements would otherwise be more circumscribed and the act of crushing during the opening and closing would be incomplete. If the attachment of the plates is not great owing to the flatness of the ridge, cusps (on the plate)† easily tend to interfere with the more extensive movements because the plate will be dislodged. The wearer of the plate will be restricted to mere vertical movements of the plates toward each other, because otherwise the attachment would suffer.

Such is not the case with the cusplless denture. Here extensive movements are freely possible without jeopardizing the attachment of the plate or interfering in any way with the crushing of the food. The masticating function does not alone consist in the possibility constantly to maintain contact during the movements of the teeth, but, in addition to other movements, principally in bringing the jaws together from the most varied positions without giving the food which

* Probably meaning the vulcanite bases.—Editor.

† Probably referring to a custom in some countries of carving cusps in the vulcanite.—Editor.

lies between the two dentures the possibility to escape without being crushed, as would happen if the dentures also escaped. If the action of the tongue did not assist in these movements it would probably be very difficult for us to masticate food. I am not referring here to the action of the tongue which constantly carries the food between the two dentures but to the extraordinarily strong suction movement of the tongue which helps tear off the broken or split food, just as the hand helps to bite off a larger piece held in the open mouth. Just as here something is broken from a larger piece, from this piece, when saturated with saliva, is sucked off whatever is in condition to be carried to the stomach. We do not chew the whole bite complete and swallow piece by piece, but the portion that has been properly chewed is sucked out and swallowed and the rest is crushed between the dentures and the tearing action of the tongue until this part also may be conducted to the stomach. How great a part the suction action of the tongue plays may be observed, for example, when chewing food which can be crushed only and is not to be saturated with saliva, such as nuts. Here we quickly notice, through a painful sensation of the tongue, how useless it was for it to try to take part in the act of mastication. If, on the other hand, food is eaten which need not be masticated, it is crushed by the tongue through suction movements against the palate and between the teeth and then swallowed.

The reason, therefore, why space should be provided for the tongue between the pieces is clear, but it is still more so when it is realized that the denture is to be utilized not only for the function of mastication but also for the function of speech. Whoever has had occasion personally to try on himself the effect of our clumsy restorations will certainly grant that I am right in saying that it is a great deal for us to expect our patients to become accustomed to such plates. I have made a number of plates for myself (having lost the upper right bicuspid during the War) and have tried to eliminate the sensation of something strange and the feeling of fullness in the mouth by proper shaping of the plates, and I finally found that the construction as represented in the illustrations is the one which will be felt least or almost not at all. A comparison of Figures 11 to 14 will show the difference between the method of construction most in use and the one recommended. Generally speaking, where there is complete absorption of the ridge, the teeth should be set as if standing on their roots; with partly absorbed ridge they will set correspondingly lower, as in a presenile atrophy, for instance, or with a newly cicatrized high ridge where the crowns only have to be replaced. Their cohesion they get from the plate (metal or vulcanite).

Especially disagreeable is the sensation of smoothness of the plate because, owing to the extent of the smooth surface, all orientation is

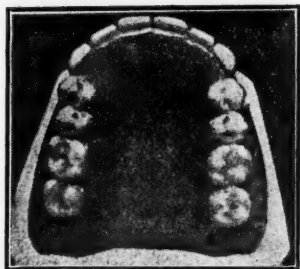


Fig. 11

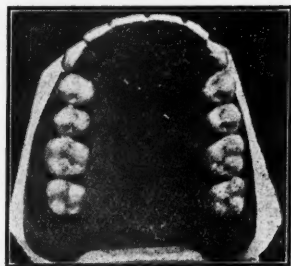


Fig. 12

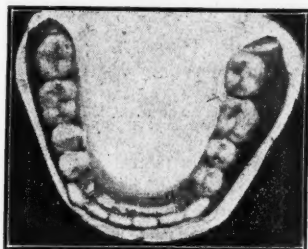


Fig. 13

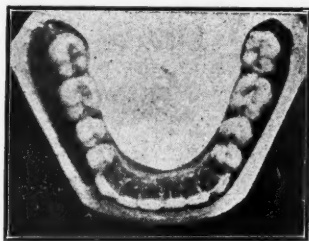


Fig. 14

The tongue, confined as in Fig. 13, finds sufficient space in this illustration.

completely lost for the positions adopted by the tongue. This is particularly disagreeable in speaking. It is only after the plate has been worn for some time and has acquired a certain roughness that orientation becomes possible and one gets used to it. As I was able to ascertain for myself, it was easy to get orientation for the tongue by making palatal rugae, which caused me to try to make speech easier for my patients under the new conditions by providing palatal rugae. Where some natural teeth remain and the plate touches them, it must not overlap the teeth, for the sensation of something strange is increased and both speech and mastication made more difficult by the very fact that what remained can no longer be properly orientated by touch. It is for this reason that crowns and bridges are so pleasant to the patient, because they adapt themselves to natural conditions. Why should we not also apply this to vulcanite plates and shape them individually instead of making them to pattern? This applies particularly also to the method of attaching clamps in partial cases. Special attention must here be given to the saving of the periodontium of the tooth bearing the clamp. However, we cannot here go into details, as that would lead us beyond the subject. . . .

In conclusion, I venture to express the hope that I have shown by these suggestions that we have paid too much attention to articulation and the grinding of the occlusal surfaces, and that we must pay more attention to the static construction and proper building out of the plates, because without them the best articulation will fail. After the construction and building out of the plates have been taken as the natural basis for plate-making, our principal task must be to construct dentures by the use of the favorable developments in articulators for the construction of articulating dentures, with due consideration for the individuality of the masticating organs, and reconstruct as far as possible the ability to masticate through proper formation of the masticating surfaces. The gratitude of our patients and the functional success of the work also will contribute to the proof that the path followed for obtaining a useful functioning denture is the right one.



DENTAL LAWS

Summary of Dental License Requirements Throughout the World

By Alphonso Irwin, D.D.S., Camden, N. J.

SOUTH GEORGIA

Under British jurisdiction. Contains about 1000 population and an area of 1000 square miles. This island is located 1200 miles east of the southernmost point of South America, and is no place to interest dentists.

SOUTH MANCHURIA

Japanese "leased territory." Each of the important hospitals in principal places, like Dairen and Mukden, has a dental section. The South Manchuria Medical College has a chair of dentistry occupied by Dr. T. Tanaka. See Japan for dental regulations. Address Dr. Kanichi Tanaka, South Manchuria Medical College, Mukden, South Manchuria.

SOUTHERN RHODESIA

An Ordinance to amend "The Dentistry Ordinance, 1900."

Be it enacted by the Administrator of Southern Rhodesia, with the advice and consent of the Legislative Council thereof, as follows:

1. Section 1 of "The Dentistry Ordinance, 1900," is hereby repealed, and in lieu thereof the following shall be the section:

1. The persons following shall be entitled to practise as dentists in Southern Rhodesia and to obtain the requisite license so to practise: (1) Every person who before the passing of this Ordinance obtained admission or authority to practise as a dentist in Southern Rhodesia; (2) Every person duly admitted and lawfully entitled to practise as a dentist in the Union of South Africa; (3) Every person who is a licentiate in dental surgery or dentistry in the United Kingdom or in any British Colony or Possession; (4) Every person who shows to the satisfaction of the Administrator that he is the holder of a certificate, diploma or

other sufficient document, entitling him as the holder thereof to practise dentistry or dental surgery in any foreign country, and furnishing sufficient evidence of the possession of the requisite knowledge and skill for the efficient practise of dentistry or dental surgery; *provided* that the person mentioned in clauses (2), (3) and (4) shall have undergone a curriculum of three years at least.

2. "Licentiate" shall mean the holder of any diploma, license, or other certificate granted after examination by a university, college or other qualifying body, and by virtue of which the holder shall be entitled to be registered as a dentist or dental surgeon in the country or colony in which such university, college, or other qualifying body may be situated.

"Curriculum" shall be the course of study necessary to a student before he can present himself for examination as a candidate for a diploma, license, or other certificate before the examining body of any university, college, or other qualifying body.

3. This Ordinance may be cited as the "Dentistry Amendment Ordinance, 1913."

Act to amend "The Dentistry Ordinance, 1900," as amended by the "Dentistry Amendment Ordinance, 1913."

Be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Legislature of the Colony of Southern Rhodesia, as follows:

1. Notwithstanding the provisions of "The Dentistry Ordinance, 1900," as amended by the "Dentistry Amendment Ordinance, 1913" (hereinafter referred to as "The said Ordinances"), the extraction of teeth by unlicensed persons in rural areas and in towns or villages where no registered dentist is resident shall not be deemed a contravention of the practise of dentistry as defined by the said Ordinances, but such extraction of teeth shall not constitute a claim for registration as a dentist under the provisions of the said Ordinances.

2. Any unlicensed person authorized to undertake the extraction of teeth in terms of the last preceding section, advertising or travelling in furtherance of such undertaking shall be guilty of an offence, and liable on conviction to a fine not exceeding twenty-five pounds, and in default of payment to imprisonment with or without hard labor for a period of not exceeding one month.

3. This Act may be cited for all purposes as the "Dentistry Ordinances Amendment Act, 1924."

SOUTH SEAS

The Japanese Mandates in the South Seas comprise the islands of Saipan, Track, Pomape, Palao, Yalute, Yap. The Japanese Colonial Dental Regulations are enforceable in these islands.

SOVIET REPUBLICS OF RUSSIA

No recent official information in regard to the dental regulations enforced in these Republics have been obtainable so far for obvious reasons. The conditions surrounding the practise of the professions, especially dentistry, have been represented as *not* being *alluring*, by non-official advices, for the alien dentist.

SPAIN

For some time it has been necessary in Spain for holders of foreign degrees to study and be examined in the majority of the courses required of native students, paying the full fees, before being permitted to utilize their foreign degrees. This applied particularly to physicians and dentists. The requirements were less stringent for lawyers, but they were so complicated for engineers that the validation of a foreign engineering degree was almost impossible.

Article 1 of the Decree of September 22, 1925, is as follows:

First, to obtain Spanish nationalization. Excepted from these requisites are: (a) Natives of countries of Spanish tongue in which, by treaties of reciprocity, it has been or may be so agreed. (b) Foreigners of those countries which do not exact this condition of Spaniards.

Second, to have passed all the examinations of the curriculum in force in the respective faculty of the Central University, or in the corresponding special school, in the same form as the examinations are established for the regular course of Spanish students.

This means in effect that any foreign applicant who desires to practise in Spain, except one from a country which has reciprocal arrangements with Spain or does not require nationalization of a foreign professional, must first acquire Spanish citizenship and then take all the examinations from the high school subjects up, which lead to the degree he already holds, and to pay all the fees of the full Spanish university course.

The process of matriculation involves presentation of the foreign diplomas duly legalized by the authorities of the university from which the applicant comes and the Spanish consul of the district in which the university is located; and their examination, with a list of the studies pursued, by the Consejo de Instruccion Publica (Council of Public Instruction). The Council does not consider the foreign diploma as *prima facie* evidence that the holder is qualified for the degree named, no matter how eminent the university which granted it, but may require evidence of the quality of the work, as well as the subjects that were studied. If the Council decides that the degree is not equivalent to that required of Spanish students, the applicant may be expected to take a special examination in the studies lacking or have

his application rejected. If the Council's decision is favorable, the applicant may matriculate in the university after he has paid the fees required for the Spanish equivalent of the degree he holds. If he is then successful as a student, he may be granted the Spanish academic title, but it will not authorize him to practise a profession in Spain without being naturalized.

ORDERS OF INTEREST TO PROVINCIAL SUB-INSPECTORS OF DENTISTRY

Royal Order of May 26, 1878, placed again in force by the Royal Order of August 25, 1913. The functions with which this resolution charges the sub-inspectors, are the following:

1. To see that no practitioner engages in the profession as dentist without the requisite degree.

2. To examine, when convenient, the diplomas of the dentists who practise, or desire to practise, in the capitals this art or profession, taking up those of persons who have failed, and having perforated the seals and signatures, return them to the families of the persons interested, if they ask for them.

3. Inform the proper Judicature or the Office of Magistracy, the name and surname, domicile and profession of the individual whom they may consider responsible for crime or fault, according to the warning in the Penal Code.

4. Hinder with his authority, and if necessary with that of the Inspectors of Public Order, the practise of the profession in the public streets.

GENERAL PUBLIC HEALTH ORDER. ARTICLES RELATING TO SUB-INSPECTORS OF DENTISTRY

Art. 38. There will be in each Province a Provincial Inspector of Health, residing in the respective capitals and in whose charge will be the services of public hygiene, besides those of general health and hygiene proper, as this Order provides.

Art. 62. It is understood by "sanitary professions"—medicine and surgery, pharmacy, veterinary surgery, obstetrics, nursing, dentistry, and in general the complementary ones which, with special certificate, may be created in this department; all these professions will be under the surveillance of the "sub-delegados" in reference to the legitimacy of the diplomas and to their regular practice.

Art. 67. No one may practise a sanitary profession without the diploma which authorizes it, according to the regulation in the laws of the Kingdom. As penalty, according to the Penal Code of transgression and misuse, and whatever inspector, municipal or provincial or general, to whose notice it may come, is absolutely obliged to convey a

statement of the crime to the competent tribunal, as intermediary of the corresponding authority.

Art. 75. According to the order in Art. 60 of the Sanitary Law in each district division or judicial district, there will be a sub-delegate of medicine, one of pharmacy, and another of veterinary surgery, charged with the fulfilment of the order relating to the practise of the respective professions, for which end they will be under the orders of the Provincial Inspector of Health and of the Governor.

Art. 77. The sub-delegates of the respective professions will make void and prosecute intrusions; they will revise and register the professional certificates, making lists of the names, with discharges from and admissions to hospitals, of which they will send copies before the months of October every year to the Civil Governor, the Inspector General of Health, the Provincial Inspector and Sub-delegate of Pharmacy, taking care to annul the certificates of the defaulting practitioners, and to authorize with their signatures and proper seals those newly entered.

ROYAL ORDER OF JUNE 4, 1875

Art. 1. The work of the dentist will constitute the following profession called that of Surgeon-Dentist, for whose practice there will be issued a special certificate.

Art. 2. The certificate of Surgeon-Dentist will authorize the treatment of diseases of the mouth sustained by disturbances or alterations of the teeth, and the general operations indispensable for their cure. Those who practise it can in no case engage in the treatment of any other disease of the human body.

ROYAL ORDER OF AUGUST 13, 1914

Art. 8. The certificate of the dentist will authorize to treat diseases and abnormalities of the teeth and their immediate and local complications, and to make and put in place artificial teeth apparatus. Licentiates in medicine will need, in order to practise dentistry, to follow the special studies which this requires.

ROYAL ORDER OF OCTOBER 6, 1877

H. M. The King has considered it well to order that the certificates of practitioners, which hereafter may be issued, will not qualify them to practise the profession of dentistry excepting the rights acquired by those who may have begun, or may begin, their career in this year.

The Royal Order of June 26, 1860, the initial one of the professional teaching of the practitioners, required of the candidates for examination merely practical knowledge, such as the art of ligatures with bandages, external applications, applications of various mild

substances (liquid and gaseous) to the human body, the practise of general and local bleeding, vaccination, scarification and cupping-glasses, perforation of the ears, etc., and finally, that which they call the art of Dentistry, which by the publication of the Royal Decree of June 4, 1875, and Royal Order of October 6, 1877, constitutes today a special profession, for whose exercise the "internes" are not qualified, corroborating these Orders by Article 5 of the Regulation in force for the careers of internes and midwives, which excepts the first in everything referring to the profession of dental surgery, and whose text is as follows:

Art. 5. Those who have to prepare for this career must learn previously motions of the external anatomy of the human body, and the regions into which it is divided, the rules for making ligatures and external applications, and to practise operations which are included in minor surgery, *excepting those of the profession of dentistry.*

ROYAL ORDER OF OCTOBER 25, 1901

In view of the fact that at the request of the various internes, those who have this certificate are authorized to practise the profession of dentistry, conforming to the proposals of this Council.

H. M. the King, and in his name the Queen Regent of the Kingdom, has ordered that the internes whose certificate may be subsequent to the Royal Order of October 6, 1877, cannot engage in the profession of dentistry, being prohibited textually in the said legal precept.

ROYAL ORDER OF FEBRUARY 11, 1886

That it is suitable to dictate a decree of general character, and ordering that all those who practise the profession of dentistry present at the end of thirty days their professional certificates to the sub-delegates of medicine and surgery, so that they may be registered in the Registry which should be in these offices.

That following this period the said sub-delegations proceed to the indictment before the governors of those individuals who may have been practising dental surgery without being legally authorized, and before the Tribunals of Justice of those who may arrogate to themselves the title of Doctor, with certificates which lack official validity, as included in the provisions of the Penal Code. And so it was determined.

ROYAL ORDER OF OCTOBER 10, 1894

(1) The Governors of the provinces will have to fulfill with the greatest attention to the delegates, mayors and sub-delegates of medicine, pharmacy and veterinary surgery, all the orders in force concerning the legal practise of the said professions, including that of "practicantes," midwives, and dental surgeons, and will have to prosecute

rigorously all intrusions of whatever kind, reminding the sub-delegates of their imperative duty, which consists in prosecuting before the courts of justice, the above-mentioned acts in contempt of law, at the same time informing the Governors of the indictments and of any infraction of the Sanitary Laws which affects, much or little, the interests of the public health.

- (2) Duties of the Governors: Prosecution.
- (3) Prosecution of delegates for failure of duty.
- (4) Fines for sub-delegates for negligence of duty.

PENAL CODE

Whoever, arrogating to himself the title of Doctor, publicly engages in acts peculiar to a profession which may not be practised without an official certificate, will incur the penalty of major imprisonment in the maximum degree, or correctional imprisonment in the minimum degree.

The usurpation of functions which an individual falsely attributes to himself in order to engage in the practise of a profession regulated by the State, which practise necessitates previous studies and competent official authorization by means of an academic degree, the law considers as a crime of malicious deceit. The penal sanction, established in Art. 343, serves as a guarantee of the interests of society, principally in that which affects the medical professions, where ignorance and charlatanry can cause very grave ills in the public health and the lives of individuals; for this reason the penalties are correctional and not light; major imprisonment, in its minimum degree, is from four months and a day to two years and four months of deprivation of liberty, the extent of the penalty graded in accordance with the greater or lesser gravity of the acts committed.

ARTICLE 94 OF THE LAW OF PUBLIC INSTRUCTION

There will be admitted to incorporation in the educational establishments the academic years passed in a foreign country, always provided that the same studies be accredited as completed in good standing as required in our schools, and in the same period of time completing all matter that has not been studied.

ARTICLE 96 OF THE LAW OF PUBLIC INSTRUCTION

The Spanish government can accord a temporary authorization to foreign graduates after hearing the opinion of the Council of Higher Education as to the value of their degrees, and after six years' practise in their profession, paying fees never greater than those required for a similar degree in Spain.

Verified August 4th, 1923. Official translation from Madrid, Spain.

DENTAL ECONOMICS

The Dentist and His Bank

By M. L. Hayward, Hartland, N. B., Canada

"Like to have a check for the last shipment we sent you," the salesman for the Midland Accessory suggested. "It's at the freight shed now."

"Haven't got any notice of it yet," the manager of the dental company demurred.

"Well, it's surely there, for I inquired on my way up," the salesman declared.

The manager accepted this assurance, delivered the check, and that evening he called at the freight office on his way home.

"No such shipment here," the freight agent told him.

The manager promptly telephoned the bank and asked for the cashier.

"Went home hours ago," the watchman told him. "Better try his house."

The manager finally located the cashier at a local theatre and explained the situation.

"Now I want you to stop payment on that check without fail," the manager told him.

"Sure—I'll make a memo on my program right now," the cashier agreed.

The bank opened at 10 A. M. the next day. At 10:15 the check was presented and paid. At 10:30 the cashier strolled in, discovered what had happened, and telephoned the manager.

"Well, it's up to the bank to stand the loss, after I'd notified you to stop payment," the manager argued.

"Oh, no, a mere telephone request that reached me out of banking hours at a local theatre isn't binding on our bank, as a matter of law," the cashier retorted.

The manager had the courage of his convictions, however. He sued the bank, and the Texas Court ruled in his favor in the case of *Hewitt vs. First National Bank*, 252 S. W. 161.

"In the instant case the cashier was not required to transact any

business away from the bank, but, acting upon the information which had been received—to stop the payment of the check at the bank—though there were some things that he could not do, as cashier, except at the bank and within banking hours, he was as much the cashier at home on Sunday as he was when he was in the bank transacting its business on any other day of the week,” said the Court.

This Dentist Is Making Good

(Here is a dentist who likes his work, is proud of his occupation, is making good and has learned how to live. If you think that is not some prescription to fill, let us hear how well you have done.—Editor.)

I have been reading with a great deal of interest the late articles in *THE DIGEST* in regard to savings and investments, as I feel that dentists as a whole have had a poor education along those lines. I feel that I was very fortunate in that my father gave me a great deal of the very important instruction which my dental college left entirely out of its course—in fact, placed a big wall around it and put up the sign, “Keep off.”

I have been in the practice of *general* dentistry since 1912 and am glad that so far I would not change my *job* for any other so far invented. In other words, I am sold on my work.

I have very strong feelings about certain conditions in our profession, but know that all will come out right in the end. I am still in doubt as to whether dentistry has progressed as far as some would wish or has simply become much more complicated. As I read some of the letters in *THE DIGEST*, I wonder whether or not the men who wrote them had as definite a plan in regard to life as they have when they start a new case of mouth reconstruction.

I was married four days before the beginning of my second year in dental college, and our first daughter was born a week before my third year started. As I was on my own, as the saying is, I had to plan to get by, and, believe me, walking nine miles twice a day up and down the streets of a mid-Western city, lighting gas lights, gives one plenty of time to plan.

After three years of practice I found that I was above water, so I took out a twenty-year income endowment policy for \$15,000, this to mature at the age of 46 and pay me 1% of the policy per month from that time on.

At the age of 32 I felt that I was in shape to increase this, so I took out another just like the first, in another company, this to mature at 52 with the same payment arrangements.

At the age of 35 I took out the third, in a still different company—all old, established companies—this to mature at 55 with the same payment arrangements. All three carry the various premium cancellations and disability clauses, so that my investment is insured in case of health failure.

Thus I have a definite estate of \$45,000 created for my family, in event of my death, and a guaranteed future for my old age if I reach it.

This means, of course, that I must save \$1757.00 per year for my premiums, but that is made easy by thinking that in six years I can play golf two days a week instead of one as now, for that \$150.00 per month will help a lot.

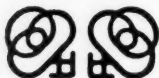
Then at 52 I can go out three days a week and at 55, with my income at \$450.00 per month, I will let the rest of the world go by.

This can be done along with other things if a definite program is planned at first, as I have a nice home, a good car, belong to a couple of clubs, and have a mountain home to get away from my work and its worrying details. This has been accomplished in fourteen years of, to me, *most pleasant work*.

I work from 7 a. m. to 6 p. m. on Monday, Tuesday, Thursday, Friday; close at noon on Wednesday and do not work at all Saturday, as that day belongs to my family. They are in school all week and it is the day on which we have to get acquainted with each other. Also my motto is:

"If your nose is close to the grindstone rough
And you keep it down there long enough,
You will soon forget there are such things
As a brook which babbles and a bird which sings.
Three things your whole world will compose,
Yourself, the stone, and your darned old nose."

CALIFORNIA A.



PRACTICAL HINTS

This department is in charge of V. C. Smedley, D.D.S., and George R. Warner, M.D., D.D.S., 610 California Building, Denver, Colorado. To avoid unnecessary delay, Hints, Questions and Answers should be sent direct to them.

NOTE—Mention of proprietary articles by name in the text pages of the DENTAL DIGEST is contrary to the policy of the magazine. Contribution containing names of proprietary articles will be altered in accordance with this rule. This Department is conducted for readers of the DENTAL DIGEST, and the Editor has no time to answer communications "not for publication." Please enclose stamp if you desire a reply by letter.

Editor Practical Hints:

I am a regular reader of the DENTAL DIGEST, and particularly the Practical Hints section. I am in trouble and want you to help me out.

I use novocain anesthesia for extractions and am getting very good results as far as the anesthesia is concerned, but the lower sockets get sore as a boil and will not heal worth two cents. I use the tablets and distilled water and am very careful that everything is sterile, and I believe it is for I have very little if any trouble with the upper sockets. I have been packing the lower sockets with Novesthal, but it does not seem to help the healing process at all. Another instance: A lady patient about thirty years old had me extract a lower bicuspid on each side. I had good anesthesia and they came out in good shape and the sockets were clean. The left one is gone and forgotten but the right one looks like it had been pulled yesterday as far as any healing is concerned. I used the same mix of solution, about $1\frac{1}{2}\%$, the same needle, and extracted both at the same time. Now what is wrong? Later I had a man present for extraction and just wanted it pulled. I never touched a thing in the mouth but the tooth, which came clean, but identically the same after-results were there. However, it didn't last as long as is usually the case. I lay it to the fact that the lower sockets will not drain as the upper ones will, but whether that is it or not, can you give me a treatment or tell me what is wrong so that I can get granulation started quicker and without so much afterpain?

H. A. H.

ANSWER.—I do not believe that the slow healing of your lower

sockets is due to any fault of your anesthesia, but rather, as you suggest, that there is no drainage from lower, open sockets, and therefore they are much more subject to irritation from food lodgment and from failure of infection to drain. It is, of course, obvious that there is nothing so good for a pack in open sockets as a normal blood clot, in case the blood clot will remain normally filling the socket and protecting same while granulation progresses from beneath. But in all cases of open sockets, where the blood clot protection is not provided by nature, there is nothing better, I believe, than a stiff mix of the sedative cement and pulp protector, formula of which has been published several times under Practical Hints, and which is—Eugenol, thymol, iodine, oxide of zinc and bismuth sub-nitrate, mixed with cotton and rolled between the fingers to a blunt cone shape about the size or slightly larger than the socket to be filled. This should be placed in the socket without sufficient pressure to distend the walls of the gum tissue and permitted to extend slightly above the mouth of the socket so that the cone of cement will not be enclosed by the contracting gum walls as the socket heals. In most cases, comfort will be established at once and no further attention will be necessary after this one application of the sedative cement pack.

Usually the healing process will progress absolutely normally, granulation taking place from the bottom upward, extruding or forcing the sedative cement cone out as healing progresses. This is the same formula that I have so often recommended for pulp capping, and it seems to act quite remarkably in stimulating health and normal functioning in both pulp and gum tissue. The patient should be requested to return at stated intervals, however, so the pack can be changed at the proper time if necessary or advisable.—V. C. SMEDLEY.

Editor Practical Hints:

I seem to have run into a mess of swollen jaws. In my little neighborhood practice averaging about eight patients daily, I have five people coming up now with swollen lower jaws that I cannot account for. I haven't had in five years the amount of swollen jaws (after my operations) at one time that I have now, and I am sure I made no change in my technic.

To be specific: Patient No. 1, lower left second, and third molars vital, but much patched. Decided to put gold shell on third molar and gingival third amalgam on second molar. Decided to make mandibular block for painless operation. Work completed, but jaw is slightly swollen. Heat test shows teeth to be vital. X-ray shows nothing wrong. No palpable pus. Advised no lancing, but the use of cold external applications, hot boracic acid mouth wash. Jaw con-

tinues to stay partly swollen, with bad breath coming from mouth. Very sickly odor, that can be detected easily on patient. I thought the block was carefully made and used the normal amount. Used usual care in sterilization.

Patient No. 2, removal of lower right third molars upper and lower. Mandibular block, and Dr. Posner's "supraperiostial" for the upper. Removed the two molars perfectly. No apparent infection. Let wounds alone and they healed up perfectly, but the right cheek is puffed out noticeably for over a month, and since there seemed to be some definite heading to the swelling I administered gas and extracted the two molars on the opposite side, and lanced the swelling. The left side gave absolutely no trouble after the gas, but from the lance all I got was some bleeding with just a slight trace of brownish fluid. The part I lanced was hard and dense even though it was in the soft part of the cheek near the parotid duct. No change after a month of swelling.

Patient No. 3, lower right imbedded bicuspid under removable bridge. Mandibular block. Perfect results from anesthesia and operation. Wound treated with iodoform gauze, and healed up completely in about three weeks. But the jaw began to swell even after the wound was healed. Swelling was in region of operation. Cheek became very hard, and the outside of the face became (and is yet) black and blue, and is disfiguring the patient. Needless to say that the patient is very much alarmed. I lanced the hardened mass in the cheek but got nothing out, nor have I helped the patient very much. I use novocaine. Do you suspect what is wrong? The other cases would give the same history.

J. R.

ANSWER.—It is pretty difficult at this range to advise as to the cause of your infections, but it would seem to me that in all probability you have gotten a particular type of infection in your office which is causing the trouble you are having. It would seem that the most likely source is in your syringe or in your preparation of the field of operation. I would advise, therefore, a complete sterilization (by boiling) of the syringe, flaming the needle immediately before injection and sterilizing the area for puncture immediately before making the puncture. It might not be a bad plan to have a thorough sterilization of your office also.

I would be glad to hear the result of your endeavor to break this run of infection.—G. R. WARNER.

Editor Practical Hints:

In case of an anterior tooth being accidentally broken off to nearly

expose the pulp, at the age of fourteen, approximately at what age would you advise preparation and placing of a porcelain jacket crown?

I have protected the pulp for a year and a half with a sedative and cement under a celluloid tip; the tooth is no longer sensitive to heat or cold when not covered, yet responds to vitality tests; what should be done to restore normal articulation necessary for proper development if a porcelain restoration is inadvisable at this time?

L. C.

ANSWER.—I am of the opinion that it is too soon now to replace this broken central with a jacket crown. You can tell, though, with an x-ray picture just how much recession of the pulp has occurred and when, in your judgment, it has receded sufficiently (still retaining normal vitality) to make jacket crown preparation logically safe; it is all right to proceed regardless of age. I believe, however, that it is usually unsafe to make such a radical preparation as is required for a jacket crown at an earlier age than eighteen or twenty.

To hold the space and make something that would be passable in appearance at the present time, you could make an open face gold crown reinforcing it well across the lingual and at the tip. In setting crown, protect the exposed dentine carefully with sedative cement and pulp protector and fill the labial portion where the tooth was broken off with the proper shade of silicate cement.—V. C. SMEDLEY.

Editor Practical Hints:

Patient, male, age 64. Has upper denture with the ten anteriors ground to the ridge, made of red rubber. His lips are constantly parched and the end of his tongue, which touches the teeth in front, seems scalded. Also the ridge, where the teeth are ground to meet, has a constant burning sensation. This is also accompanied by a free flow of saliva at all times.

Would appreciate some advice as to how to overcome this condition, as it seems to me very extraordinary. Nothing seems wrong with the denture in any way.

H. H. H.

ANSWER.—I would make this man another plate or just replace the rubber in this plate with black or natural base rubber, if he does not wish or is not in a position to have a gold plate which would, no doubt, be preferable from the standpoint of this irritation and discomfort in his mouth.

You should also be very careful to provide relief, preventing nerve pressure over the three foraminae and their distributing areas.—V. C. SMEDLEY.

Editor Practical Hints:

What would you consider the best treatment where a child of 4 or 5 years of age has fallen and loosened the two upper centrals to such an extent that they give severe pain and swelling on the surrounding tissues?

D. W. G.

ANSWER.—You will probably do best by letting these teeth alone, unless you can manage to get them wired to the cuspids and laterals or some other way hold them still to prevent their moving and irritating the supporting tissue. In all probability they will grow fast and the inflammation will subside, although it is, of course, possible that the pulps may die from the shock, although death of pulps is not so likely in so young a child.—V. C. SMEDLEY.

Editor Practical Hints:

I heated mercury with Mellotte's metal. I would like to know how to distill this mercury from the metal. Also how to remove mercury from old amalgam.

L. L.

ANSWER.—You can drive mercury off from metal with heat, as it volatilizes at a lower temperature than any other metal. However, this should be done either in the retort, where the mercury can be precipitated and reclaimed, or in the open air, as the fumes are very poisonous and, of course, would contaminate any noble metal which you might have near it.—G. R. WARNER.

Editor Practical Hints:

I am an interested and much helped reader of your magazine. Will you please help me some more by advising me in this case?

A girl, 16 years old. Her mother died of diabetes when the daughter was five years old. Sickness of several years' standing. The deciduous teeth decayed very badly; anteriors had cavities at the gingival that eventually cut the teeth off. Her permanent teeth decayed soon after eruption; her lower incisors had mesial, distal, and labial cavities in each, so that I had to put crowns on them about three years ago. At that time I put in about six synthetic porcelain fillings in proximal cavities in her upper anteriors, about four gold inlays in labial and buccal cavities, and about four amalgam fillings in her posterior teeth. About a month ago she came again and I put in twenty-two amalgam fillings in her posterior teeth.

No teeth have been devitalized, and none extracted; I had to cap about four pulps; her mouth reasonably clean; fairly good prophylaxis.

Her father has asked me, "What causes this condition?" "What shall we do?" "Did her mother's condition have any effect on the girl?"

Can you give us any advice as to care, diet, etc.? Any help will be gratefully received.

C. W. M.

ANSWER.—Family history has much to do with dental caries as well as with other conditions, and I think you will find that this girl's forebears were afflicted much as she is. It is questionable if her mother's diabetes is a direct cause of her caries.

Anything and everything that can be done to raise her blood calcium would be helpful in combating the caries. That means all possible sunshine and fresh air, with a diet rich in mineral salts and low in protein and manufactured sugar. This diet will be helpful if she has a tendency to diabetes.—G. R. WARNER.



DENTAL SECRETARIES and ASSISTANTS

Secretaries' Questionnaire

All questions and communications should be addressed to Elsie Pierce, care of THE DENTAL DIGEST, 220 West 42nd Street, New York City.

NOTE—HAVE YOU A BETTER WAY? HAVE YOU A TIME-SAVING SHORT CUT? DO YOU KNOW A "STUNT" THAT LIGHTENS THE WORK OR MAKES FOR EFFICIENCY IN THE OFFICE? IF SO, WRITE TO ELSIE PIERCE, CARE THE DENTAL DIGEST, 220 WEST 42ND ST., NEW YORK. YOU MAY HELP A NUMBER OF GIRLS WHO ARE JUST BEGINNERS—AND YOU KNOW HOW YOU NEEDED HELP DURING YOUR FIRST FEW MONTHS IN A DENTAL OFFICE. OR IF YOU NEED HELP NOW WRITE TO ELSIE PIERCE—SHE'LL HELP YOU.

After reading the suggestions for the removal of iodine stains published in recent issues of THE DENTAL DIGEST, I am surprised that no one knew the easiest one, as follows:

Place spot over wash basin or bowl and pour scalding water through it. This will remove every trace, provided the stain has not been soaped or any patent remover used. This is so much simpler than any method suggested.

NEBRASKA.

This suggestion from Nebraska is very much appreciated. Ammonia may be used for the removal of iodine stains from the hands of the dentist or assistant or the face of the patient, but the one given above would no doubt be quite satisfactory for linen.

I am an assistant in a rural practice. Once in a while we run short of some supplies, waiting for the salesman of our supply house to call. Not long ago the doctor needed articulating paper and the box was empty. I thought of my typewriter carbon paper, so I cut some of it into strips, and it certainly answered the purpose. Another time we were all out of celluloid strips. Some old x-ray films were soaked in a weak solution of nitric acid, the coating removed, the celluloid base cut into strips and used in the placing of synthetic porcelain fillings.

Old kodak films can be utilized in the same manner. I should be glad to see other "emergencies" published in this department. Surely other assistants have had to invent substitutes that tided over an emergency.

M. K., Iowa.

I feel that you are "a friend in need," after reading the articles in THE DENTAL DIGEST, and, as a help to beginners in the occupation of dental assistant, you are a haven of refuge.

I accepted a position in a dental office, having had practically no experience, yet I want to prove efficient and learn all that I can. I have been a nurse for a number of years and I truly hope to make a success of my work in the dental office. I shall appreciate any suggestion or advice. I have had very little or practically no experience in office or clerical work, so any suggestions along this line will greatly help.

M. T., Los Angeles, Cal.

First, we are happy indeed to know that you look upon us as your friend, for that is just what we desire to be to all dental assistants.

Second, we are pleased that the Secretaries' Questionnaire has been of help to you, for it is our aim to be of service to all dental assistants and help them to help themselves.

Now, may we suggest that you look up the numbers of THE DENTAL DIGEST for the past two or three years and carefully read the questions and answers and other data published therein. They have touched on every phase of dental assisting and should give much information of value to you as a beginner.

As regards the secretarial and clerical service to be rendered by an assistant, this necessarily depends upon the type of office and class of patients served, plus the desire on the part of the dentist for system in this department of his practice. I say "desire on the part of the dentist" advisedly, for I am informed that there are members of the dental profession who do not keep any books or financial records, and others who do not allow their assistant to "meddle" with this phase of their practice. However, we shall assume that your employer is willing and glad to have you help him in this economic service.

He no doubt has his own system of bookkeeping, records, and filing. Familiarize yourself with this system and learn how to do the work it entails accurately and neatly. If he has no such system, suggest that one be installed and that you will be glad to learn how to care for its details. There are a number of bookkeeping and record systems available that are suitable for a dental practice, and each, if carried out, will do the work desired.

There is one fundamental in any system used that cannot be neg-

lected, and that is the keeping of accurate records during the development of the work throughout the day and the proper recording of these records at the end of the day. I stress this point particularly because details always escape our memories and records that are not absolutely correct are serious trouble-makers.

Any one doing clerical or secretarial work should know how to use a typewriter. Shorthand is a valuable adjunct, but requires intensive study and practice, while you can learn how to typewrite by practicing a little each day and an hour or two, two or three evenings each week, until you have acquired sufficient facility in operating the particular machine in your office. Speed will come with practice.

Keep a small pad and a pencil in the pocket of your uniform upon which you can jot down "gentle reminders," for many times during the day something will come up that needs recording, or a patient may make a remark which should be brought to the doctor's attention, or the doctor may ask you to remind him of such and such when he has a moment, etc.

I eagerly watch for *THE DENTAL DIGEST* each month. I have found therein many things that have helped me, and so I send along a suggestion, hoping that it may help some one else.

For assistants who use gas-tubing connections in their office, may I pass on the following which has proved economical and helpful. Before forcing the hose on the metal connection, moisten the end about one inch with a good oil. The hose will then slip on easily and it will not rot or crack as quickly as when used otherwise.

B. M. W., Pa.

Second Annual Meeting

AMERICAN DENTAL ASSISTANTS ASSOCIATION

The second annual meeting of the American Dental Assistants Association was held at Philadelphia, Pa., August 19-21, 1926.

On Thursday, August 19th, at 9 a. m., the first session of the House of Delegates was held in the Pennsylvania Room, Hotel Pennsylvania. The meeting was called to order by the President, Juliette A. Southard, and was followed by the report of the Credentials Committee, Anna H. Sykora, Chairman. Upon roll call it was found that the following societies were represented by delegates and alternates: Alabama Dental Assistants Association; Fifth District Society of Dental Nurses and Assistants, Georgia; Chicago and Cook County

Dental Assistants Association; Indiana State Association of Dental Assistants; Luzerne County Dental Assistants Association, Pa.; Dental Assistants and Secretaries Association of Maryland; Educational and Efficiency Society for Dental Assistants, First District, New York; Cincinnati Dental Assistants Association, Ohio; Cleveland Dental Assistants Association, Ohio; Educational and Efficiency Society for Dental Assistants, Pittsburgh, Pa.; Dental Assistants Association, Second District, Tennessee; Philadelphia Association of Dental Nurses; Oklahoma State Dental Assistants Association; Minnesota Dental Nurses and Assistants Association; Efficiency Society of Dental Assistants, Mississippi.

A greeting was given by Elma Moore Eggers, President of the Cleveland Dental Assistants Association, in which she urged those present to take back to their respective societies and offices a bigger viewpoint of the calling of dental assistant and the realization of the wonderful field for service that it offers to the conscientious, capable young woman.

Next came the appointment of the Reference Committees by the President and the rendering of annual reports of officers. In the report of the President stress was laid on the necessity for cooperation, as follows:

"Without cooperation no organization can function properly, whether it be a small local society or a large national body. Cooperation is the essence of success and the lubricant that makes the wheels of progress turn smoothly and effectively. With cooperation there should be coordination. Careful thought should be given to the expression of and the carrying out of plans and ideas. There is also great necessity for courtesy and promptness in all the dealings of members of societies. Why procrastinate in responding to communications that require a reply? Is it fair to all concerned? It is certainly not fair to one's self. . . .

"Reports have come to me from some of our constituent societies in reference to the dental profession calling upon them to furnish them with assistants. At first thought, and in pursuance of our ideals of service, it would seem the proper thing to do, but from practical experience and when given mature consideration it has been found to be a serious handicap to the welfare of a society. Reasons for this are that a dental assistant may be entirely satisfactory in one office and wholly unsatisfactory in another. The question of temperament of both the dentist and the assistant must be taken into consideration, and no society is in a position to judge of the qualities or deficiencies of either individual. Furthermore, the purpose of societies for dental assistants is to aid the members to secure education, greater technical skill, and a bigger and broader viewpoint of their professional service.

Any deviation from this purpose depreciates the efforts of the organization, and to those who are critical, if a society conducts what might be termed an employment bureau, it opens up the opportunity for censure. Let us keep free from this. . . .

"There should be a better understanding of the purpose for which dental assistants' societies have been organized, including our own National Association. They have a specific reason for being—the raising of the calling of dental assistant to that of a respected, dignified profession, under the watchwords, *Education, Efficiency, Loyalty, Service.*"

Under new business, a motion was passed reaffirming the resolution adopted at the meeting held in Louisville, Ky., September 22, 1925, petitioning the deans of the recognized dental schools throughout the country to establish a department for the training of dental assistants.

A number of dental assistants residing in those districts where there are as yet no constituent societies were elected to membership.

Helen E. Smith of Baltimore presented a paper entitled *The Dental Assistant of Today*, and a paper on *Collection of Accounts* was presented by Mrs. Mildred Thompson of Knoxville, Tenn. The speaker at this session was Dr. Henry Fowler, Ex-President of the New Jersey State Dental Society, who gave an inspiring address on the value of the trained, competent dental assistant. Dr. Fowler commended the Association on the splendid work accomplished in raising the standards of service to the dental profession and patients.

On Thursday afternoon at 2 p. m. the General Meeting of the Association was held at the Thomas W. Evans Museum and Dental Institute, University of Pennsylvania. This session opened with the Pledge to the Flag, led by Blodwen M. Williams of Foxburg, Pa. Dr. Charles R. Turner, Dean of the Thomas W. Evans School of Dentistry, followed with an inspiring address of welcome, extending the hospitality of the Dental Institute to the Association and expressing himself as well pleased with the constructive work being accomplished. The response to this address of welcome was made by Ella B. Ray of Atlanta, Ga., President of the Dental Assistants Society in Georgia and Third Vice-President of the American Dental Assistants Association.

This was followed by the President's Address. It was voted by the Association that the President's Address be published in full and a copy be provided for each member and members of the dental profession who might be interested.

A paper entitled *The Responsibility of a Dental Assistant* was given by Iona Oswalt, of Tuscaloosa, Alabama, and Blodwen M. Williams of Foxburg, Pa., presented a paper entitled *Our Duty to Our Association, Local and National*. The guests of honor at this

session included Dr. A. L. J. C. Van Hasselt of The Hague, Holland, personal representative of the Queen of Holland at the Seventh International Dental Congress; also, Dr. Ch. F. L. Nord of The Hague, Holland, Secretary of the International Dental Federation; Dr. A. J. Cottrell of Knoxville, Tenn., and Dr. A. E. Park of Philadelphia.

On Friday, August 20th, the second session of the House of Delegates convened at 9 a. m. at the Thomas W. Evans Museum and Dental Institute. Following the usual business procedure, Mabel Carithers of Princeton, Indiana, presented a paper entitled *Dental Assisting in a Smaller Town*. Jean Tallaksen of New York followed with a paper entitled *What Do We Get from Our Association, Local and National?* The guests of honor were Dr. Sheppard W. Foster, President of the American Dental Association, and Mrs. Foster; also Dr. J. Sanders of Amsterdam, Holland. Dr. Foster gave a splendid address, filled with inspiration, good counsel and advice. He heartily approves of the work the Association is doing, is watching its progress with interest, and urges all thinking dental assistants to help in its advancement. Mrs. Foster expressed her pleasure at being able to meet with such a representative group of young women, all interested in one another's welfare. Their efforts deserve much praise and are deserving of assistance, which she accords in fullest measure. Dr. Sanders spoke of the dental assistants of Holland and said he hoped some day to see an association in Holland similar to the American Dental Assistants Association.

Friday, at 2 p. m., in the Pennsylvania Room, Hotel Pennsylvania, table demonstrations were given of the work of a capable dental assistant, as follows: Sterilization Assistance, by the Misses H. Buck, E. Leeker and A. Gubser of the Cincinnati Dental Assistants Association; X-Ray Assistance, by Elma Moore Eggers of the Cleveland Dental Assistants Association; Laboratory Assistance, by the Misses M. Graham, R. Rogers and A. Ryan of the Chicago and Cook County Dental Assistants Association; Prosthetic Assistance, by Katherine Morris of the Dental Assistants and Secretaries Association of Maryland; Group Demonstration, including Chair Assistance, Secretarial Assistance and Orthodontic Assistance, by the Misses M. Keit, V. Watrous, and Ann Marvel of the Educational and Efficiency Society for Dental Assistants, New York; Helpful Hints and Short Cuts to Service, by Ella B. Ray of the Fifth District Society of Dental Nurses and Assistants, Georgia. Jean Tallaksen as Acting Vice-Chairman had charge of the demonstrations.

The third and last session of the House of Delegates was called to order at 9 a. m., Saturday, August 21st, in the Pennsylvania Room, Hotel Pennsylvania. At this meeting was held the election of officers and members of the Board of Trustees, as follows: President, Juliette

A. Southard, 174 West 96th St., New York; First Vice-President, Blodwen M. Williams, Foxburg, Pa.; Second Vice-President, Grace B. Renshaw, 1004 Neave Bldg., Cincinnati, Ohio; Third Vice-President, Iona Oswalt, Tuscaloosa, Ala.; General Secretary, Maude Sharpe, 8 West 40th St., New York; Treasurer, Angie Ryan, 25 East Washington St., Chicago, Ill.; Board of Trustees, First District, 2 years, Agnes Phillips, Bridgeport, Conn.; Fourth District, 3 years, Ella B. Ray, Atlanta, Ga.; Seventh District, 3 years, Nora Overson, Minneapolis, Minn.; Eighth District, 1 year, Blanche Doyle, Tulsa, Okla.; Ninth District, 3 years, Aloise B. Clement, Omaha, Neb.

Following adjournment, the annual luncheon was held in the main dining room of the Hotel Pennsylvania. A splendid program was presented, the President, Juliette A. Southard acting as toastmistress. Among the speakers were Dr. A. D. Black, Dean of Northwestern University Dental School, Chicago, Ill.; Dr. C. Edmund Kells, New Orleans, La.; Dr. G. W. Hillias, Vice-President, American Dental Association; Dr. A. R. Melendy, Treasurer, American Dental Association; Dr. C. N. Johnson, Past President, American Dental Association; Dr. Henry Fowler, Ex-President, New Jersey State Dental Society; Drs. Van Hasselt and Nord, The Hague, Holland; Drs. Leite and Sharp, Brazil; Dr. DeLos L. Hill, Dr. H. L. Wheeler and Dr. J. Brady. Through the courtesy of the Philadelphia Dental Nurses Association, a splendid musical program was presented during the luncheon. At the close of this splendid function, marking the termination of a most successful meeting, *Auld Lang Syne* was sung by all.

The next meeting of the Association will be held in Detroit, Mich., at the same time as the meeting of the American Dental Association. Plans are already under way to make this 1927 meeting a banner one, both in attendance and in interest. All dental assistants desiring information regarding the Association are urged to write the Secretary or any of the officers located in their vicinity.

Clinic Club

OF THE

EDUCATIONAL AND EFFICIENCY SOCIETY FOR DENTAL ASSISTANTS,
NEW YORK

The Educational and Efficiency Clinic Club resumed its activities at a meeting held at the office of Dr. A. T. Goldwater, 576 Fifth Avenue, New York, on Monday, September 27, 1926.

Under the leadership of Jean Tallaksen, acting director, the club plans to continue its work as in the past.

As part of a group of clinics presented by dental assistants before the American Dental Assistants Association in convention at Philadelphia, Pa., August 19-21, 1926, demonstrations on general chair assistance, secretarial assistance and orthodontic assistance were given by members of the Educational and Efficiency Society, New York.

The Club meets regularly at 7:30 P. M. on the third Monday evening of each month, September to May, inclusive. All members of the Educational and Efficiency Society for Dental Assistants, New York, are eligible and are urged to join.

Meeting

OF THE

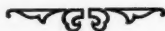
EDUCATIONAL AND EFFICIENCY SOCIETY FOR DENTAL ASSISTANTS,
NEW YORK

The October meeting of the Educational and Efficiency Society for Dental Assistants, New York, will be held at the Academy of Medicine, 17 West 43d Street, New York, on Tuesday, October 5, 1926, at 8 p. m., the date being advanced a week, as October 12th is a legal holiday.

The essayist of the evening will be Dr. John Jacob Posner, Visiting Dental Surgeon of St. Luke's Hospital. His subject will be *Old World Wanderings of an American Dentist*.

The Society meets on the second Tuesday of each month, October to May, inclusive, at the Academy of Medicine, New York. A cordial invitation is extended to the members of the dental profession and to their assistants.

Dental assistants who are actively employed in the conduct of ethical dental offices are urged to join. The Society offers many opportunities to gain the advantages arising from association and co-operation toward a mutual goal. Martha Keit, Chairman of the Membership Committee, 32 Court Street, Brooklyn, N. Y., will be glad to furnish further details.





EXTRACTIONS



No Literature can have a long continuance if not diversified with humor—ADDISON

Utopia is located forty miles beyond the place where the dreamers wake up.

"And do you have reindeer in Canada?"

"No, darling, it always snows."

You can't tell. Maybe a fish goes home and lies about the size of the bait he stole.

(Burroughs)—I asked you for a loan of ten dollars. This is only five.

(Lenders)—I know it is, but that's the fairest way—you lose five and I lose five.

If you are old enough to remember the man's shirt that buttoned up the back you cannot doubt that the world is getting better.

(Jerry)—I like to hear that professor lecture on chemistry. He brings things home to me that I have never seen before.

(Tom)—That's nothing; so does the laundry.

"Why is Mary taking violin lessons?"
"She thinks she has beautiful elbows."

LAFF THAT OFF

(He)—You are a little Fairy, may I hold your Palmolive?

(She)—Not on your Lifebuoy, your head's solid Ivory.

(He)—This is where I get the Colgate.

(She)—I Woodbury that joke if I were you.

WHEN THE CHEMISTS FEED US

Give me a spoon of oleo, Ma,
And the sodium alkali,

For I'm going to make a pie, Mama!
I'm going to make a pie.

For Dad will be hungry and tired, Ma,
And his tissues will decompose;

So give me a gram of phosphate,
And the carbon and cellulose.

Now give me a chunk of casein, Ma,
To shorten the thermic fat.

And give me the oxygen bottle, Ma,
And look at the thermostat.

And if the electric oven is cold
Just turn it on half an ohm,

For I want to have supper ready
As soon as Dad comes home.

Here is a story about the most optimistic man:—Totally bald, he went to a drug store and asked for a bottle of hair restorer. "Yes, sir," the clerk said, "here is a preparation that is sure to make your hair grow." "All right," replied the optimist, "I'll take a bottle. And please wrap up a comb and brush with it."

There are 876,458 miles of railway tracks in the country, according to Horatius Smythe, the well known Shakespearian actor.

SOME CHANNEL STUFF

For ages and ages man has been hearing loud and very pronounced statements about the "weaker sex."

He has been compelled to relinquish the comfortable chair to any lady that happened to be present; he has been called from his Saturday afternoon rest to move the piano or beat the rugs; mowing the lawn and carrying up the coal have been drudgeries left to him. He has relinquished seats in street cars, carried heavy bags, changed the tires on the car all by himself.

His great moment of revolt comes when, just as he was reading the news of Miss Ederle's triumph, his wife says, "Henry, will you fetch me a drink of water?" He rises from his seat and starts to obey, then suddenly halts. Fixing his startled spouse with a flashing eye, he shouts, "Never!" in a determined voice. "If Miss Ederle can swim the Channel, you can get yourself a drink of water."

Bluntly speaking, this girl is a traitor to her sex and has undone, in that outrageous exhibition of female prowess, the careful work of centuries.

One wonders what a Channel swimmer's husband says to a Channel swimmer after she has made the trip. Probably Mr. Corson said something like, "Well, now that you've got this Channel swim out of your system maybe you'll come home for a few days and do some housework."

The Channel I have never swum,
And I'll admit it does seem dumb.
The truth is this (now don't say
"shush!")

I'm waiting to avoid the rush.

DIETETICS and HEALTH

Chemists to Give Us Synthetic Food

At the recent annual meeting of the American Chemical Society held in Philadelphia, Dr. James F. Norris, in his presidential address, made many statements that are sure to astonish the world after their real significance is understood.

"When the world learned how to use heat as a source of energy a new epoch of civilization was marked out," said Dr. Norris. "When heat was the only form of usable energy to bring about transformation in matter a great chemistry was built up.

"With the mastery of electricity a second epoch in civilization was created and a new chemistry was born.

"We are now beginning to study the effects of a new kind of energy on matter—the energy tied up in the electron and the atom. Scientists know that energy has two factors—quantity and intensity—and that the latter factor is all important in bringing about changes in matter.

"The study of the behavior of matter under the action of energy with a high intensity factor will lead to a new chemistry. The ground has only been broken in the investigation of the action of sunlight, ultra-violet light and x-rays.

"And now the highly penetrating rays studied by Milliken furnish an opportunity for the discovery of startling facts. The utilization of the radiant energy supplied free and in unlimited amounts will follow further study in this field.

"At present we rely upon the slow-going process of nature to convert the waste carbon dioxide of the air into the cereal foods so necessary for living things. It has been shown that ultra-violet light will convert formaldehyde into a sugar.

"And since formaldehyde can be made from the products formed when coal is heated with steam, it is possible to see ahead the synthesis of foods without the slow process of passing through the vegetable kingdom.

"We are beginning to learn how to obtain and use energy with a high intensity factor, and the result will be again a new chemistry and a new world to live in.

"Recalling the achievements of the past one can boldly prophesy future triumphs. As an example, let us consider but one field in which synthetic organic chemistry will prove itself to be, perhaps, the most potent factor of all—those that are working toward the advancement of civilization and the peace of the world. I refer to the use of chemical compounds in combating disease and, as a result, prolonging life—the modern science of chemotherapy.

"As a result of a look ahead, I am filled with confidence in the future. I see in the next half-century a great development in chemistry in the world, and especially in this country, where the conditions are most favorable, I see our knowledge of matter extended so broadly that what we know today is but the foreground of an impressive picture.

"And I see an unparalleled utilization of chemical knowledge for the physical, esthetic and economic welfare of man. And when, through the efforts of chemists, the world has more of good health, and every one more leisure to get to know his fellows, to travel, to enjoy the best in life, the day will come when the world will be a better place in which to live and international good feeling will prevail."





A BOOK MAY BE AS GREAT A THING AS A BATTLE—DISRAELI

Three Score and Nine (Forty-five Years in Dentistry), by C. Edmund Kells, D.D.S., New Orleans, La. This latest book of Dr. Kells is a compilation of information which is sure to enrich every dentist who makes it his own, and we know of no way in which a dentist can acquire such a store of practical knowledge unless he either lives "three score years and nine," with the active, inquiring mind of a Kells, or reads the book.

Dentists old and young owe themselves the pleasure and the profit that they will derive from this cross-section of a rare mind. Here they will see the procession of dental fads and fancies pass in review. They will see some fade out under the questioning of "Daddy" Kells, some punctured by his rapierlike wit, while others that met his approval in years gone by will be recognized as fully accredited methods of today.

Dr. Kells's style is delightfully original and is as easy to read as a "best seller," which, by the way, we hope this book will prove to be. 563 pp., with 182 illustrations, appendix and index. Published by C. Edmund Kells, D.D.S., 1237 Maison Blanche, New Orleans, La.



The Dental Assistant, by Emma J. McCaw, R.N., St. Petersburg, Florida, with introduction by C. N. Johnson, M.A., D.D.S., F.A.C.D., Ex-President of the American Dental Association and Editor of *The Journal of the American Dental Association*. It is the aim of this book to be useful in as practical a way as possible to the young woman assistant who is anxious to render efficient aid to the dentist with whom she is associated and who has at heart the welfare of his patients. It aims also to relieve somewhat the strain placed upon the dentist whose duty it is to teach a new assistant. 119 pp., with 22 illustrations and index. St. Louis, Mo.: The C. V. Mosby Company, 1926.

FUTURE EVENTS

THE ODONTOGRAPHIC SOCIETY OF CHICAGO announces a Testimonial Dinner to be given in honor of C. EDMUND KELLS of New Orleans at Hotel La Salle, Chicago, Thursday evening, October 21, 1926, at six o'clock. This dinner is a deserving tribute to Dr. Kells, who is one of dentistry's most devoted disciples and one of its most active, versatile and beloved representatives. Dr. Kells was the first American dentist to apply the roentgenogram to the practice of dentistry.

A special literary feature coincident with the dinner will be a symposium on *The Dental Hygienist* by Dr. Kells, Dr. Thomas J. Barrett of Worcester, Mass., and Dr. Alfred C. Fones of Bridgeport, Conn., the most brilliant thinkers and writers on this subject at the present time.

Every ethical dentist throughout the United States and Canada is cordially invited to attend this dinner.

Reservations should be made through the Chairman of the Dinner Committee, P. G. Puterbaugh, 29 East Madison Street, Chicago.

DEWITT C. BACON, *President*,
31 North State St., Chicago.

HART J. GOSLEE, *Program Committee*,
108 North State St., Chicago.

THE CONNECTICUT DENTAL COMMISSION will meet at Hartford, Connecticut, on November 16, 17, 18, 1926, to examine applicants for license to practice dentistry and dental hygiene and to transact any other business proper to come before them.

Attention of dental hygienists is called to Section 11 of the Connecticut Dental Laws, Chapter 2907 Amended, reading as follows: "From July 1, 1926, every dental hygienist applying for a license shall present a certificate from the state board of education that she has completed a four years' course at an approved high school, or has an equivalent academic education. No license shall be issued to any dental hygienist unless she shall present a diploma or other certificate of graduation from some reputable institution. The dental commission is authorized to determine the institutions which shall be considered 'reputable institutions' for the purpose of Chapter 153 of the general statutes."

For further information, apply to A. B. Holmes, Recorder, 43 Central Avenue, Waterbury, Connecticut.

THE UNION COUNTY DENTAL SOCIETY, a component of the NEW JERSEY STATE DENTAL SOCIETY, will hold its Sixth Annual All-Day Midwinter Convention on December 1, 1926.

The Auditorium, one of the finest within the State, of the Elks Club,

Elizabeth, N. J., with entrance on Union Avenue, has been secured, and the entire proceedings will be held within the Auditorium. The clinics, starting at 10:30 a. m., will be somewhat of an innovation. Subjects presenting daily problems will be dealt with from the viewpoint of their fundamentals. This fact should be of intense interest to the general practitioner. The essay of the evening will be given at eight o'clock, as a courtesy to out-of-town friends. Dinner in honor of the President of the Society will be served at 6:30 p. m. A detailed program will be printed later.

ARTHUR F. WOOLSEY, *Director*,
1162 East Jersey Street, Elizabeth, N. J.

THE STATE BOARD OF REGISTRATION AND EXAMINATION IN DENTISTRY OF NEW JERSEY will hold its regular examinations at Trenton, commencing December 6, 1926, and continuing for five days thereafter. The license fee is \$25.00; re-examination fee, \$10.00.

Practical tests required: Insertion of an approximal gold filling with the approximating tooth in position, compound approximal amalgam filling and a silicate filling, the candidate to furnish his own patient; taking of impression, bite, selection of teeth, articulation, trial plate, the candidate to furnish his own patient; practical examination in mouth diagnosis.

Attention is directed to the following quotation from the dental law of New Jersey: "Applicant shall present to said Board a certificate from the Commissioner of Education of this State, showing that before entering a dental college he or she had obtained an academic education consisting of a four-year course of study in an approved high school or the equivalent thereof."

In accordance with this law, the secretary will issue application blanks only upon presentation of the required certificate from the Commissioner of Education, State House, Trenton, New Jersey.

Application must be filed, complete, ten days before the date of the examinations.

Address all communications for further particulars to

JOHN C. FORSYTH, *Secretary*,
148 West State St., Trenton, N. J.

